

TEXT to be deleted is ~~struck out and bold~~. Text to be added is **bold** and single underlined (for text) or double underlined (for headers).

Amend 310 CMR 7.00 Definitions:

ADHESION PRIMER means a coating that is applied to a polyolefin part to promote the adhesion of a subsequent coating. An adhesion primer is clearly identified as an adhesion primer or adhesion promoter on its accompanying material safety data sheet.

AIR-DRIED COATING for purposes of 310 CMR 7.18(11)(d)2.a. and b. means a coating that is cured at a temperature below 90°C, equivalent to 194°F.

AIR-DRIED COATING for purposes of 310 CMR 7.18(21) means a coating that is dried by the use of air or forced warm air at temperatures below 90°C (194°F).

ANTIFOULANT COATING means any coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms, and registered with the United States Environmental Protection Agency (EPA) as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136).

AUTOMOTIVE/TRANSPORTATION COATING means the coating of any plastic part that is or shall be assembled with other parts to form an automobile or truck.

~~**AUTOMOTIVE SURFACE COATING** means the coating at automobile assembly plants of bodies and front end sheet metal (hood and fenders) of passenger cars capable of seating 12 or fewer passengers or light duty vehicles rated at 8500 pounds gross weight or less or derivatives of such vehicles.~~

BAKED COATING means a coating that is cured at a temperature that is at or above 90°C, equivalent to 194°F.

BLACK COATING means a coating which meets both of the following criteria:

1. Maximum lightness: 23 units.

2. Saturation: less than 2.8, where saturation equals the square root of $A^2 + B^2$.

These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, maximum lightness is 33 units.

BUSINESS MACHINE means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission, including devices listed in North American Industry Classification System (NAICS) numbers 333318, 334112, 334118, 334210, and photocopy machines, a subcategory of products classified under NAICS code 333316.

BUSINESS MACHINE COATING means the coating of any plastic part that is or shall be assembled with other parts to form a business machine.

CAMOUFLAGE COATING means a coating used, principally by the military, to conceal equipment from detection.

CLASS II HARDBOARD PANELING FINISH means a finish that meets the **class II** specifications of ANSI A135.5-2004 Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute (ANSI).

COATING for purposes of 310 CMR 7.18(14) means materials applied onto or impregnated into a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, solvent-borne coatings, waterborne coatings, adhesives, wax coatings, wax laminations, extrusion coatings, extrusion laminations, 100 percent solid adhesives, UV cured coatings, electron beam cured coatings, hot melt coatings, and cold seal coatings. Materials used to form unsupported substrates, such as calendaring of vinyl, blown film, cast film, extruded film, and co-extruded film, are not defined as coatings.

COATING LINE for purposes of 310 CMR 7.18(14) means a series of coating applicators, flash-off areas, and any associated curing/drying equipment between one or more unwind/feed stations and one or more rewind/cutting stations.

DRUM means any cylindrical metal shipping container larger than 12 gallons capacity but no larger than 110 gallons capacity.

ELECTRIC DISSIPATING COATING means a coating that rapidly dissipates a high voltage electric charge.

ELECTRICAL AND ELECTRONIC COMPONENTS for purposes of 310 CMR 7.18(31) means components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators, rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors, and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

ELECTRIC-INSULATING AND THERMAL-CONDUCTING COATING means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-°F.

ELECTRIC-INSULATING VARNISH means a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.

ELECTROSTATIC PREPARATION COATING means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat, or other coating through the use of electrostatic application methods. An electrostatic preparation coating is clearly identified as an electrostatic preparation coating on its accompanying material safety data sheet.

EMI/RFI SHIELDING COATING means a coating used on electrical or electronic equipment to provide shielding against electromagnetic interference (EMI), radio frequency interference (RFI), or static discharge.

ETCHING FILLER means a coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

EXTREME HIGH-GLOSS COATING for purposes of 310 CMR 7.18(11)(d)2.a. and b. means a coating which, when tested by ASTM standard D523-08, shows a reflectance of 75 percent or more on a 60° meter.

EXTREME HIGH-GLOSS COATING for purposes of 310 CMR 7.18(11)(b)4. and (d)2.c. means a coating which, when tested by ASTM standard D523-08, shows a reflectance of 90 percent or more on a 60° meter.

EXTREME PERFORMANCE COATING for purposes of 310 CMR 7.18(11)(d)2.a. and b. means a coating used on a metal or plastic surface where the coated surface is, in its intended use, exposed to extreme environmental conditions such as those listed below. The term includes, but is not limited to, coatings applied to locomotives, railroad cars, farm machinery, and heavy duty trucks. Extreme environmental conditions include, but are not limited to, any of the following:

- 1. Chronic exposure to corrosive, caustic, or acidic agents, chemicals, chemical fumes, chemical mixtures, or solutions;**
- 2. Repeated exposure to temperatures in excess of 121°C, equivalent to 250°F; or**
- 3. Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents.**

FINISH PRIMER/SURFACER means a coating applied with a wet film thickness of less than 10 mils prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections.

FLEXIBLE COATING means any coating that is required to comply with engineering specifications for impact resistance, mandrel bend, or elongation as defined by the original equipment manufacturer.

FOG COATING means a coating that is applied to a plastic part for the purpose of color matching without masking a molded-in texture.

GLOSS REDUCER means a coating that is applied to a plastic part solely to reduce the shine of the part. A gloss reducer shall not be applied at a thickness of more than 0.5 mils of coating solids.

HEAT-RESISTANT COATING means a coating intended to withstand a temperature of at least 204°C, equivalent to 400°F, during normal use.

HIGH BAKE coating means a coating which is designed to cure only at temperatures of more than 90°C (194°F).

HIGH BUILD PRIMER/SURFACER means a coating applied with a wet film thickness of 10 mils or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, or a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections.

HIGH GLOSS COATING means any coating which achieves at least 85 percent reflectance on a 60° meter when tested by ASTM D 523-89.

HIGH-PERFORMANCE ARCHITECTURAL COATING means a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05 (Voluntary Specification,

Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).

HIGH-PRECISION OPTICS for purposes of 310 CMR 7.18(31) means the optical elements used in electro-optical devices that are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes of light energy levels.

HIGH PRECISION PRODUCTS means products for which contamination must be minimized in accordance with a customer or other specification, including but not limited to:

- (a) Products for use in extreme environments;
- (b) Products covered by rigorous military or commercial specifications that require extremely accurate and quality controlled manufacturing; or
- (c) Products with quality standards that do not allow for potential excess contamination.

HIGH-TEMPERATURE COATING means a coating that is certified to withstand a temperature of 1000°F for 24 hours.

INDUSTRIAL CLEANING SOLVENT for purposes of 310 CMR 7.18(31) means liquid used to clean parts, products, tools, machinery, equipment, and general work areas, including cleanup solutions and degreasing agents. Industrial cleaning solvent does not include janitorial supplies used for cleaning offices, bathrooms or other similar areas.

MANUFACTURING PLANT for purposes of 310 CMR 7.18(7), means a stationary source where automobile or light-duty truck bodies are manufactured and/or finished.

MASK COATING means thin film coating applied through a template to coat a small portion of a substrate.

MEDICAL DEVICE for purposes of 310 CMR 7.18(31) means an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory that is:

1. intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of diseases;
2. intended to affect the structure or any function of the body; or
3. defined in the National Formulary or the United States Pharmacopoeia or any supplement to it.

METALLIC COATING means a coating that contains more than 5 grams total of pure elemental metal or a combination of elemental metals per liter of coating as applied.

MILITARY SPECIFICATION COATING means a coating that has a formulation approved by a United States military agency for use on military equipment.

MOLD-SEAL COATING means the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

MOTOR VEHICLE BEDLINER means a multi-component coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to a cargo bed after the application of topcoat to provide additional durability and chip resistance.

MOTOR VEHICLE CAVITY WAX means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection.

MOTOR VEHICLE DEADENER means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

MOTOR VEHICLE GASKET/SEALING MATERIAL means a fluid, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization (RTV) seal material.

MOTOR VEHICLE LUBRICATING WAX/COMPOUND means a protective lubricating material, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to vehicle hubs and hinges.

MOTOR VEHICLE SEALER means a high viscosity material, used at a facility that is not an automobile or light-duty truck assembly coating facility, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). The primary purpose of automobile and light-duty truck sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant primer, or caulk.

MOTOR VEHICLE TRUNK INTERIOR COATING means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the trunk interior to provide chip protection.

MOTOR VEHICLE UNDERBODY COATING means a coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the undercarriage or firewall to prevent corrosion and/or provide chip protection.

MULTI-COLORED COATING means a coating which exhibits more than one color when applied, and is packaged in a single container and applied in a single coat.

MULTI-COMPONENT COATING means a coating requiring the addition, before application, of a separate reactive resin, commonly known as a catalyst or hardener, in order to form an acceptable dry film.

ONE-COMPONENT COATING means a coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.

OPTICAL COATING means a coating applied to an optical lens.

PACKAGING ROTOGRAVURE PRINTING OR PACKAGING FLEXOGRAPHIC PRINTING

means rotogravure **or flexographic** printing upon paper, paper board, metal foil, plastic films, and other substrates which are, in subsequent operations, formed into packaging products and labels for articles to be sold.

PAN-BACKING COATING means a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

PAPER, FILM, AND FOIL SURFACE COATING means the coating, including specialty printing, of paper with organic solvent borne material for a variety of decorative and functional products, including but not limited to, adhesive tapes, adhesive labels, metal foil, decorated, coated and glazed paper, book covers, office copier paper (zinc oxide coated), carbon paper, typewriter ribbons, and photographic films. **Coating performed on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press is part of a printing process and is not part of the paper, film, and foil surface coating category.**

PLEASURE CRAFT are vessels which are manufactured or operated primarily for recreational purposes, or leased, rented, or chartered to a person or business for recreational purposes. The owner or operator of such vessels shall be responsible for certifying that the intended use is for recreational purposes.

PLEASURE CRAFT COATING means any marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller, or other means to a pleasure craft.

PREFABRICATED ARCHITECTURAL COMPONENT COATINGS means coatings applied to metal parts and products that are to be used as an architectural structure.

PRESSURE SENSITIVE TAPE means a flexible backing material with a pressure-sensitive adhesive coating on one or both sides of the backing. Examples include, but are not limited to, duct/duct insulation tape and medical tape.

PRETREATMENT COATING means a coating which contains no more than 12 percent solids, by weight, and at least 1/2 percent acid, by weight; is used to provide surface etching; and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

PRETREATMENT WASH PRIMER for purposes of 310 CMR 7.18(11) and (21) means a coating which contains no more than 12 percent solids, by weight, and at least 1/2 percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

PUBLICATION ROTOGRAVURE PRINTING OR PUBLICATION FLEXOGRAPHIC PRINTING

Mmeans rotogravure **or flexographic** printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

RADIATION EFFECT COATING for purposes of 310 CMR 7.18(31) means a material that prevents radar detection.

RED COATING means a coating which meets all of the following criteria:

- 1. Yellow limit: the hue of hostaperm scarlet.**
- 2. Blue limit: the hue of monastral red-violet.**

3. Lightness limit for metallics: 35% aluminum flake.

4. Lightness limit for solids: 50% titanium dioxide white.

5. Solid reds: hue angle of -11 to 38 degrees and maximum lightness of 23 to 45 units.

6. Metallic reds: hue angle of -16 to 35 degrees and maximum lightness of 28 to 45 units.

These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, the upper limit is 49 units. The maximum lightness varies as the hue moves from violet to orange. This is a natural consequence of the strength of the colorants, and real colors show this effect.

REPAIR COATING means a coating used to re-coat portions of a previously coated product which had sustained mechanical damage to the coating.

RESIST COAT means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part.

SAFETY-INDICATING COATING means a coating that changes physical characteristics, such as color, to indicate unsafe conditions.

SHOCK-FREE COATING means a coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and having resistance to breaking down under high voltage.

SILICONE-RELEASE COATING means any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.

SOLAR-ABSORBENT COATING means a coating which has as its prime purpose the absorption of solar radiation.

SOLID-FILM LUBRICANT means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

SPECIALTY PRINTING means all gravure and flexographic operations which print a design or image, excluding packaging rotogravure printing, ~~packaging flexographic printing, and~~ publication rotogravure printing, ~~and publication flexographic printing~~. Specialty printing operations include, but are not limited to, printing on paper cups and plates, patterned gift wrap, wall paper, and floor coverings.

STENCIL COATING for purposes of 310 CMR 7.18(11)(b)2. and (21)(b)1. means an ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters, symbols, and/or numbers.

STENCIL COATING for purposes of 310 CMR 7.18(21)(b)2. means a coating that is applied over a stencil to a plastic part at a thickness of 1 mil or less of coating solids. Stencil coatings are most frequently letters, numbers, or decorative designs.

TEXTURE COATING means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

TOUCH-UP COATING for purposes of 310 CMR 7.18(11) and (21) means a coating used to cover minor coating imperfections that appear after the main coating operation is completed.

TRANSLUCENT COATING means a coating which contains binders and pigment, and is formulated to form a colored, but not opaque, film.

VACUUM METALLIZING means a process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

VACUUM-METALLIZING COATING means: (a) the undercoat applied to a substrate on which the metal is deposited; or (b) the overcoat applied directly to the metal film.

VOLATILE ORGANIC COMPOUND is any compound of carbon which participates in atmospheric photochemical reactions. For the purpose of determining compliance, VOC is measured by the applicable reference test methods specified in 40 CFR 60. ~~310 CMR 7.00: VOLATILE ORGANIC COMPOUND~~ Volatile organic compound includes all organic compounds except the following:

<u>CAS Number</u>	<u>Chemical Name</u>
67641	acetone,
<u>124685</u>	<u>AMP (2-amino-2-methyl-1-propanol),</u>
506876	ammonium carbonate,
<u>616386</u>	<u>dimethyl carbonate,</u>
<u>108327</u>	<u>propylene carbonate,</u>
630080	carbon monoxide,
...	
<u>75467</u>	<u>FC-23 (trifluoromethane),</u>
...	
507551	HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane),
<u>75467</u>	<u>HFC-23 (trifluoromethane),</u>
75105	HFC-32 (difluoromethane),
...	
138495428	HFC 43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane),
<u>1691174</u>	<u>HFE-134 (HCF₂OCF₂H),</u>
<u>78522471</u>	<u>HFE-236ca12 (HCF₂OCF₂OCF₂H),</u>
<u>188690780</u>	<u>HFE-338pcc13 (HCF₂OCF₂CF₂OCF₂H),</u>
<u>188690779</u>	<u>H-Galden 1040X or H-Galden ZT 130 (or 150 or 180),</u>
	<u>(HCF₂OCF₂OCF₂CF₂OCF₂H),</u>
75031	HFE-7000 or n-C3F7OCH3 (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane),
...	
297730939	HFE-7500 or HFE-s702 or T-7145 or L-15381 (3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane),
<u>754121</u>	<u>HFO-1234yf (2,3,3,3-tetrafluoropropene),</u>
<u>29118249</u>	<u>HFO-1234ze (trans-1,3,3,3-tetrafluoropropene),</u>
N/A	Cyclic, branched, or linear, completely fluorinated alkanes,
...	
N/A	Cyclic, branched, or linear, completely methylated siloxanes,
<u>102687650</u>	<u>Solstice™ 1233zd(E) (trans-1-chloro-3,3,3-trifluoroprop-1-ene),</u>
N/A	Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Amend 310 CMR 7.03

(1) General.

(c) Nothing in 310 CMR 7.03 relieves a person who owns, operates, leases or controls a facility from having to comply with other applicable requirements of 310 CMR 7.00, **including applicable 310**

CMR 7.18 and 7.19 RACT requirements that come into effect after the person constructs, substantially reconstructs or alters, or operates an emission unit under 310 CMR 7.03.

(15) Non-heatset Offset Lithographic Printing. On or after July 1, 1992 construction, substantial reconstruction or alteration of any non-heatset offset lithographic printing press, except such presses present at a facility subject to 310 CMR 7.26(20), utilizing materials containing VOCs or organic material, including but not limited to, printing inks, overprint coatings, makeup solvents, fountain solution additives, alcohol and cleanup solutions, complying with the applicable performance standards set forth in 310 CMR 7.03(15)(b) and (15)(c) shall be subject to the requirements in either 310 CMR 7.03(15)(a)1. or ~~(a)2.~~ **and in 310 CMR 7.03(15)(e), and to the recordkeeping requirements in 310 CMR 7.03(15)(d).**

....

(b) Non-heatset offset lithographic printing presses subject to 310 CMR 7.03(15) and employing a fountain solution containing VOC shall meet the following **as applied** specifications:

1. ~~[Reserved.]For web presses installed prior to May 1, 1998:~~
 - ~~a. The fountain solution shall be maintained at 1.6% by volume or less of alcohol; or~~
 - ~~b. The fountain solution shall be maintained at 3% by volume or less of alcohol and the fountain solution refrigerated to a temperature of less than 60°F.~~
2. For web presses installed on or after May 1, 1998, the fountain solution shall not contain any alcohol.
3. ~~[Reserved.]For sheet-fed presses with cylinder widths greater than 21 inches installed before July 1, 1992:~~
 - ~~a. The fountain solution shall be maintained at 5% by volume or less of alcohol; or,~~
 - ~~b. The fountain solution shall be maintained at 8% by volume or less of alcohol and the fountain solution refrigerated to a temperature of less than 60°F.~~
4. For sheet-fed presses with cylinder widths greater than 21 inches installed on or after July 1, 1992:
 - a. The fountain solution shall be maintained at 3% by volume or less of alcohol; or
 - b. The fountain solution shall be maintained at 5% by volume or less of alcohol and the fountain solution refrigerated to a temperature of less than 60°F.
5. ~~[Reserved.]For sheet-fed presses with cylinder widths less than or equal to 21 inches, installed before July 1, 1992, the fountain solution shall be maintained at 10% by volume or less of alcohol.~~

...

(e) Any person who complies with 310 CMR 7.03(15) in lieu of obtaining a plan approval for a press under 310 CMR 7.02 shall comply with applicable RACT requirements of 310 CMR 7.18(25) when such requirements become more stringent than those in 310 CMR 7.03(15).

(16) Paint Spray Booths. Construction, substantial reconstruction or alteration of any paint spray booth utilizing coatings, thinners, reducers and cleanup solutions, and complying with the applicable performance standard of 310 CMR 7.03(16)(b) through (l) shall be subject to the requirements in **310 CMR 7.03(16)(m) and** either 310 CMR 7.03(16)(a)1. or (a)2.

...

(b) The coating operation shall be of a type described in 310 CMR 7.18, regardless of annual or potential emission applicability criteria contained in 310 CMR 7.18. These operations are:

- 310 CMR 7.18(3) Metal Furniture Surface Coating;
- 310 CMR 7.18(4) Metal Can Surface Coating;
- 310 CMR 7.18(5) Large Appliance Surface Coating;
- 310 CMR 7.18(6) Magnetic Wire Insulation Surface Coating;
- 310 CMR 7.18(7) Automobile Surface Coating;**

310 CMR 7.18(10) Metal Coil Coating;
 310 CMR 7.18(11) Surface Coating of Miscellaneous Metal Parts and Products;
 310 CMR 7.18(21) Plastic Parts Surface Coating;
 310 CMR 7.18(22) Leather Surface Coating;
 310 CMR 7.18(23) Wood Products Surface Coating;
 310 CMR 7.18(24) Flat Wood Paneling Surface Coating; and
 310 CMR 7.18(28) Automotive Refinishing

Operations not listed in 310 CMR 7.03(16)(b) are not covered by this exemption and require either a Limited Plans Application (LPA) or Comprehensive Plans Application (CPA) as required by 310 CMR 7.02.

(c) ~~Except as provided in 310 CMR 7.18(11)(a)1., a~~ All coatings used in the new or modified spray booth shall comply with the as-applied formulations contained in 310 CMR 7.18 *et seq.*, for the spray coating of material described by the relevant subsection. Notwithstanding the previous statement, for any person who owns, leases, operates or controls a facility with coating operation(s) subject to 310 CMR 7.03(16), the emissions of VOC from any coatings used in small amounts at the facility are exempt from the emission limitations of the relevant subsection, provided the person satisfies the following conditions:

...

(m) Any person who complies with 310 CMR 7.03(16) in lieu of obtaining a plan approval for a spray booth under 310 CMR 7.02 shall comply with applicable RACT requirements of 310 CMR 7.18(3) through (6), (10), (11), (21) through (24), and (28) when such requirements become more stringent than those in 310 CMR 7.03(16).

(19) Flexographic, Gravure, Letterpress and Screen Printing. On and after May 1, 1998, construction, substantial reconstruction, or alteration of any flexographic, gravure, letterpress, or screen printing press at a facility not subject to 310 CMR 7.26(20) through (29), utilizing materials containing VOC or organic material, including but not limited to, printing inks and overprint coating, alcohol, makeup solvents, and cleanup solutions complying with the applicable performance standards in 310 CMR 7.26(25) and 310 CMR 7.26(26) shall be subject to the limits and reporting requirements in either 310 CMR 7.03(19)(a)1. or ~~(a)2.~~ **and in 310 CMR 7.03(19)(c), and to the recordkeeping requirements in 310 CMR 7.03(19)(b).**

...

(b) Any person subject to 310 CMR 7.03(19) shall maintain records sufficient to demonstrate compliance. Such records shall include, but **are** not limited to, records demonstrating that cleanup solutions, inks, coatings, and adhesives are in compliance with applicable standards set forth in 310 CMR 7.26(20) through (29) and that the usage rate or the emissions rate do not exceed the rates set forth in 310 CMR 7.03(19)(a). Records kept to demonstrate compliance shall be kept on site for three years and shall be made available to representatives of the Department upon request.

(c) Any person who complies with 310 CMR 7.03(19) in lieu of obtaining a plan approval for a press under 310 CMR 7.02 shall comply with applicable RACT requirements of 310 CMR 7.18(12) and (25) and 310 CMR 7.26(20) through (29) when such requirements become more stringent than those in 310 CMR 7.03(19).

Amend 310 CMR 7.18:

310 CMR 7.18

(1) U Applicability and Handling Requirements.

...

(g) Any person who complies with 310 CMR 7.03 in lieu of obtaining a plan approval for an emission unit under 310 CMR 7.02 shall comply with applicable RACT requirements of 310 CMR 7.18 when such requirements become more stringent than those in 310 CMR 7.03.

(h) Any person who complies with 310 CMR 7.26 shall comply with applicable RACT requirements of 310 CMR 7.18 when such requirements become more stringent than those in 310 CMR 7.26.

(2) U Compliance with Emission Limitations.

(a) Any person subject to 310 CMR 7.18, shall maintain continuous compliance with all requirements of 310 CMR 7.18. Except as provided for in 310 CMR 7.18(2)(b) and (g), compliance ~~averaging times are~~ **is** based on the control method selected to meet the applicable emission limitations and EPA test methods as codified in 40 CFR Part 60, or other methods approved by the Department and EPA, and are as follows:

<u>Compliance or Control Method</u>	<u>EPA Reference Test Method (or other as indicated)</u>	<u>Test Method Sampling Duration Averaging Time</u>
<u>Volatile organic compound leak detection</u>	<u>21</u>	<u>as specified in Test Method</u>
<u>Coatings, Inks and Related Materials Ref</u> Formulation	24 [†] , <u>24A</u>	instantaneous <u>grab sample</u>
<u>Solvent destruction or solvent recovery Exhaust measurement</u> except carbon adsorption	<u>18</u>	<u>as specified in Test Method</u>
	25, <u>25A, 25B,</u> <u>California Air Resources Board (CARB) Method 100</u>	<u>3three hours (as three one-hour runs)</u>
Carbon adsorption	<u>18</u>	<u>as specified in Test Method</u>
	25 or other as appropriate	the length on the adsorption cycle or 24-hours, whichever is less.

[†] ~~Reference Method 24 shall use a 60 minute bake time at 110°C ± 5°C.~~

~~(b) Persons owning, leasing, or controlling the operation at a specific site location of any individual or combination of coating lines described in 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), and (21) through (24) may, for compliance with dates specified in 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), and (21) through (24), and the emissions limitations contained in 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), and (21) through (24), submit a proposed plan containing a mix of emission limits for such coating lines such that the total emissions from all coating lines is less than or equal to the sum of emissions that would result from each individual coating line complying with the applicable emission limitation contained in 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), and (21) through (24).~~

~~Submittal of such a proposed plan is subject to review and approval by the Department and must provide for compliance consistent with 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), and (21) through (24).~~

Any person ~~proposing to~~ **complying** with the requirements of 310 CMR 7.18 by emissions averaging ~~under 310 CMR 7.18(2)(b), is also~~ subject to the requirements of 310 CMR 7.00: Appendix B(4).

...

(e) Any person owning, leasing, operating, or controlling a facility **using air pollution capture and control equipment to comply with** ~~subject to 310 CMR 7.18(3) through (7), (10) through (12), (14) through (16), or (30) shall demonstrate compliance with the requirements for emissions capture and control equipment by~~ continuously monitoring and maintaining records on the following parameters:

.....

(3) U Metal Furniture Surface Coating.

(a) Applicability.

1. On or after January 1, 1980, and prior to [2 years after promulgation date], no person who owns, leases, operates, or controls a metal furniture coating line, which emits, before any application of air pollution control equipment, in excess of 15 pounds per day of volatile organic compounds (VOC), shall cause, suffer, allow or permit emissions ~~there from~~ in excess of 5.1 pounds of VOC per gallon of solids applied the requirements of 310 CMR 7.18(3)(d)1. Such person shall also comply with 310 CMR 7.18(3)(g) through (i).

2. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls metal furniture surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(3)(c), (d)2., (e), and (g) through (i).

3. On or after [promulgation date], any person who owns, leases, operates, or controls metal furniture surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(3)(f) for coating and cleaning operations.

(b) Exemptions.

1. The requirements of 310 CMR 7.18(3)(d)2. and 3. do not apply to:

- a. stencil coatings;
- b. safety-indicating coatings;
- c. solid-film lubricants;
- d. electric-insulating and thermal-conducting coatings;
- e. touch-up coatings;
- f. repair coatings; or
- g. coating application utilizing hand-held aerosol cans.

2. The requirements of 310 CMR 7.18(3)(e) do not apply to:

- a. touch-up coatings;
- b. repair coatings; or
- c. coating application utilizing hand-held aerosol cans.

(c) Extensions. Any person subject to 310 CMR 7.18(3)(a)2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(3)(a)2. by complying with 310 CMR 7.18(3)(g). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(3)(a)2. for persons applying under 310 CMR 7.18(3)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

- 1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;
- 2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;
- 3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and
- 4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(3)(d).

(d) Reasonably Available Control Technology Requirements.

1. Any person subject to 310 CMR 7.18(3)(a)1. shall not exceed a limitation of 5.1 pounds of VOC per gallon of solids applied.

2. Any person subject to 310 CMR 7.18(3)(a)2. shall limit VOC emissions by using only coatings having a VOC content no greater than the emission limitations listed in Tables 310 CMR 7.18(3)(d)2.a. or b. or by complying with the requirement in 310 CMR 7.18(3)(d)3. If a coating can be classified in more than one coating category in 310 CMR 7.18(3)(d)2., then the least stringent coating category limitation shall apply.

Table 310 CMR 7.18(3)(d)2.a. RACT Emission Limitations for Surface Coating of Metal Furniture				
	Mass of VOC per volume of coating less water and exempt compounds, as applied			
	Baked		Air - Dried	
Coating Category	kg/l coating	lb/gal coating	kg/l coating	lb/gal coating
General, One Component	0.275	2.3	0.275	2.3
General, Multi-Component	0.275	2.3	0.340	2.8
Extreme High Gloss	0.360	3.0	0.340	2.8
Extreme Performance	0.360	3.0	0.420	3.5
Heat Resistant	0.360	3.0	0.420	3.5
Metallic	0.420	3.5	0.420	3.5
Pretreatment Coatings	0.420	3.5	0.420	3.5
Solar Absorbent	0.360	3.0	0.420	3.5

Table 310 CMR 7.18(3)(d)2.b. RACT Emission Limitations for Surface Coating of Metal Furniture				
	Mass of VOC per volume of coating solids, as applied			
	Baked		Air - Dried	
Coating Category	kg/l solids	lb/gal solids	kg/l solids	lb/gal solids
General, One Component	0.40	3.3	0.40	3.3
General, Multi-Component	0.40	3.3	0.55	4.5
Extreme High Gloss	0.61	5.1	0.55	4.5
Extreme Performance	0.61	5.1	0.80	6.7
Heat Resistant	0.61	5.1	0.80	6.7
Metallic	0.80	6.7	0.80	6.7
Pretreatment Coatings	0.80	6.7	0.80	6.7
Solar Absorbent	0.61	5.1	0.80	6.7

3. Any person may achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment instead of complying with the requirements of 310 CMR 7.18(3)(d)2.

(e) Application Methods. Unless complying with 310 CMR 7.18(3)(a)2. by means of 310 CMR 7.18(3)(d)3., all coatings shall be applied using one or more of the following:

- 1. electrostatic application;**
- 2. HVLP spray;**
- 3. flow coat;**
- 4. roller coat;**
- 5. dip coat , including electrodeposition;**
- 6. airless spray;**
- 7. air-assisted airless spray; or**
- 8. a coating application method capable of achieving a transfer efficiency equivalent to or greater than that achieved by HVLP, as approved by EPA.**

(f) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(3) shall comply with the work practices of 310 CMR 7.18(31)(e).

(g) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(3)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(3)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(3)(a)2. who chooses to apply for an extension under 310 CMR 7.18(3)(c) shall comply with 310 CMR 7.18(20).

~~**(h) Any person subject to 310 CMR 7.18(3)(a) shall maintain continuous compliance at all times. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance shall not include any considerations of transfer efficiency.**~~

(eh) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(3)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for ~~three~~**five** years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; **and**
6. any other requirements specified by the Department in any approval(s) ~~and/or~~ order(s) issued to the person.

(di) Testing Requirements. Any ~~P~~persons subject to 310 CMR 7.18(3)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(3). Testing shall be conducted in accordance with EPA Method 24 ~~and/or~~ Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **EPA Method 25A shall be used when:**

- 1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

(5) U Large Appliance Surface Coating.

(a) Applicability.

1. On or after January 1, 1980, and prior to [2 years after promulgation date], no person who owns, leases, operates, or controls a large appliance coating line, which emits, before any application of air pollution control equipment, in excess of 15 pounds per day of volatile organic compounds (VOC), shall cause, suffer, allow or permit emissions ~~there from~~ in excess of 4.5 pounds of volatile organic compounds per gallon of solids applied the requirements of 310 CMR 7.18(5)(d)1. Such person shall also comply with 310 CMR 7.18(5)(g) through (i).

2. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls large appliance surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(5)(c), (d)2., (e), and (g) through (i).

3. On or after [promulgation date], any person who owns, leases, operates, or controls large appliance surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(5)(f) for coating and cleaning operations.

(b) Exemptions.

1. The requirements of 310 CMR 7.18(5)(d)2. and 3. do not apply to:

- a. stencil coatings;**
- b. safety-indicating coatings;**
- c. solid-film lubricants;**
- d. electric-insulating and thermal-conducting coatings;**
- e. touch-up coatings;**
- f. repair coatings; or**
- g. coating application utilizing hand-held aerosol cans.**

2. The requirements of 310 CMR 7.18(5)(e) do not apply to:

- a. touch-up coatings;**
- b. repair coatings; or**
- c. coating application utilizing hand-held aerosol cans.**

(c) Extensions. Any person subject to 310 CMR 7.18(5)(a)2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(5)(a)2. by complying with 310 CMR 7.18(5)(g). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(5)(a)2. for persons applying under 310 CMR 7.18(5)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

- 1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;**
- 2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;**
- 3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and**
- 4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(5)(d).**

(d) Reasonably Available Control Technology Requirements.

- 1. Any person subject to 310 CMR 7.18(5)(a)1. shall not exceed a limitation of 4.5 pounds of VOC per gallon of solids applied.**
- 2. Any person subject to 310 CMR 7.18(5)(a)2. shall limit VOC emissions by using only coatings having a VOC content no greater than the emission limitations listed in Tables 310 CMR 7.18(5)(d)2.a. or b. or by complying with the requirement in 310 CMR 7.18(5)(d)3. If a coating can be classified in more than one coating category in 310 CMR 7.18(5)(d)2., then the least stringent coating category limitation shall apply.**

Table 310 CMR 7.18(5)(d)2.a. RACT Emission Limitations for Surface Coating of Large Appliances				
	Mass of VOC per volume of coating less water and exempt compounds, as applied			
	Baked		Air - Dried	
Coating Category	kg/l coating	lb/gal coating	kg/l coating	lb/gal coating
General, One Component	0.275	2.3	0.275	2.3
General, Multi-Component	0.275	2.3	0.340	2.8
Extreme High Gloss	0.360	3.0	0.340	2.8
Extreme Performance	0.360	3.0	0.420	3.5
Heat Resistant	0.360	3.0	0.420	3.5
Metallic	0.420	3.5	0.420	3.5
Pretreatment Coatings	0.420	3.5	0.420	3.5
Solar Absorbent	0.360	3.0	0.420	3.5

Table 310 CMR 7.18(5)(d)2.b. RACT Emission Limitations for Surface Coating of Large Appliances				
	Mass of VOC per volume of coating solids, as applied			
	Baked		Air - Dried	
Coating Category	kg/l solids	lb/gal solids	kg/l solids	lb/gal solids
General, One Component	0.40	3.3	0.40	3.3
General, Multi-Component	0.40	3.3	0.55	4.5
Extreme High Gloss	0.61	5.1	0.55	4.5
Extreme Performance	0.61	5.1	0.80	6.7
Heat Resistant	0.61	5.1	0.80	6.7
Metallic	0.80	6.7	0.80	6.7
Pretreatment Coatings	0.80	6.7	0.80	6.7
Solar Absorbent	0.61	5.1	0.80	6.7

3. Any person may achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment instead of complying with the requirements of 310 CMR 7.18(5)(d)2.

(e) Application Methods. Unless complying with 310 CMR 7.18(5)(a)2. by means of 310 CMR 7.18(5)(d)3., all coatings shall be applied using one or more of the following:

- 1. electrostatic application;**
- 2. HVLP spray;**
- 3. flow coat;**
- 4. roller coat;**
- 5. dip coat , including electrodeposition;**
- 6. airless spray;**
- 7. air-assisted airless spray; or**
- 8. a coating application method capable of achieving a transfer efficiency equivalent to or greater than that achieved by HVLP, as approved by EPA.**

(f) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(5) shall comply with the work practices of 310 CMR 7.18(31)(e).

(g) Plan and Extension Submittal Requirements.

- 1. Any person subject to 310 CMR 7.18(5)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(5)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).**

2. Any person subject to 310 CMR 7.18(5)(a)2. who chooses to apply for an extension under 310 CMR 7.18(5)(c) shall comply with 310 CMR 7.18(20).

~~(b) Any person subject to 310 CMR 7.18(5)(a) shall maintain continuous compliance at all times. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance shall not include any considerations of transfer efficiency.~~

(eh) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(5)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for ~~three-five~~ years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; **and**
6. any other requirements specified by the Department in any approval(s) ~~and~~ or order(s) issued to the person.

(di) Testing Requirements. ~~Any P~~persons subject to 310 CMR 7.18(5)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance **with 310 CMR 7.18(5).** Testing shall be conducted in accordance with EPA Method 24 ~~and~~ or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **EPA Method 25A shall be used when:**

- 1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

((7) Reserved) U Automobile Surface Coating.

~~(a) No person who owns, leases, operates, or controls an automobile and/or light duty truck manufacturing plant, which emits in excess of 15 pounds per day of volatile organic compounds (VOC), shall cause, suffer, allow or permit emissions therefrom in excess of the emission limitations, on a daily weighted average basis, and within the schedule contained in 310 CMR 7.18(7)(b).~~

~~(b)~~

**Emissions Limitations
Automotive Surface Coating**

Coating Line	Emission Limitation (*)	Compliance Date
Primer Application	1.4 lbs. of VOC/gallon of solids applied	December 31, 1982
Primer-surfacer Application	4.5 lbs. of VOC/gallon of solids applied	December 31, 1985
Topcoat Application	15 lbs. of VOC/gallon	December 31, 1985

~~of solids deposited (**)~~

~~Final Repair Application~~

~~13.8 lbs. of VOC/gallon
of solids applied~~

~~December 31, 1985~~

~~* Compliance is determined on a line-by-line basis through the daily weighted average of the coatings used in each category for each separate line.~~

~~** The emission limitation for topecoat application is equivalent to 4.5 lbs of VOC/gallon of solids applied at a transfer efficiency of 30%.~~

~~(c) Any person subject to 310 CMR 7.18(7)(a) shall maintain continuous compliance at all times, and is subject to a daily compliance averaging time. Demonstrations of compliance may include considerations of transfer efficiency provided that the baseline transfer efficiency and the transfer efficiency test method are approved by the Department and EPA.~~

~~(d) Any person subject to 310 CMR 7.18(7)(a) shall prepare and maintain daily records sufficient to demonstrate compliance consistent with the applicable averaging time as stated in 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for three years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:~~

- ~~1. identity, quantity, formulation and density of coating(s) used;~~
- ~~2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;~~
- ~~3. solids content of any coating(s) used;~~
- ~~4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;~~
- ~~5. quantity of product processed; and,~~
- ~~6. any other requirements specified by the Department in any approval(s) and/or order(s) issued to the person.~~

~~(e) Persons subject to 310 CMR 7.18(7)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance. Testing shall be conducted in accordance with EPA Method 24 and/or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. Testing to determine topecoat emission rates, transfer efficiency, and other relevant criteria shall be conducted in accordance with the protocols described in EPA document 450/3-88-018, or by other methods approved by the Department and EPA.~~

~~(11) U Surface Coating of Miscellaneous Metal Parts and Products.~~

~~(a) Applicability.~~

~~1. On or after December 31, 1982-unless granted an extension by the Department to December 31, 1985, no person who owns, leases, operates, or controls a miscellaneous metal parts and products coating lines, which has the potential to emit equal to or greater than ten tons per year of volatile organic compounds (VOC), shall cause, suffer or permit emissions of volatile organic compounds in excess of the emission limitations set forth in 310 CMR 7.18(11)(b)1. Such person shall also comply with 310 CMR 7.18(11)(g) through (i).~~

~~2. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls miscellaneous metal parts and products surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(11)(c), (d)2., (e), and (g) through (i).~~

~~3. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls plastic parts surface coating operations and miscellaneous metal parts and products surface coating operations and related cleaning operations within the same facility, which in~~

total emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(11)(c), (d)2. and 3., (e), and (g) through (i). The plastic parts surface coating operations are subject to 310 CMR 7.18(21).

4. On or after [promulgation date], any person who owns, leases, operates, or controls miscellaneous metal parts and products surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(11)(f) for coating and cleaning operations.

(b) Exemptions.

1. Emissions of volatile organic compounds from coatings used in small amounts are exempt from the emissions limitations of 310 CMR 7.18(11)(b). The sum of all coatings exempted from the emission limitations of 310 CMR 7.18(11)(b) shall not exceed 55 gallons per year at any facility. Usage of exempt coatings shall be reported to the Department in accordance with 310 CMR 7.12.

12. Any facility which has not, since January 1, 1991 emitted, before the application of any air pollution control equipment, one ton or more of volatile organic compounds in any one calendar month, or ten or more tons of volatile organic compounds in any consecutive 12 month time period is exempt from the emissions limitations of 310 CMR 7.18(11)(b)1.

3. Any facility subject to 310 CMR 7.18(11) as of July 1, 1991, which was not subject to 310 CMR 7.18(11) prior to July 1, 1991, shall achieve compliance with the applicable sections of 310 CMR 7.18(11) by July 1, 1992.

2. The miscellaneous metal parts and products coatings requirements of 310 CMR 7.18(11)(d)2. and 3. and (e) do not apply to:

- a. stencil coatings;
- b. safety-indicating coatings;
- c. solid-film lubricants;
- d. electric-insulating and thermal-conducting coatings;
- e. magnetic data storage disk coatings; or
- f. plastic extruded onto metal parts to form a coating.

3. The requirements of 310 CMR 7.18(11)(e) do not apply to:

- a. touch-up coatings;
- b. repair coatings; or
- c. textured coatings.

4. The requirements of 310 CMR 7.18(11)(e) do not apply to pleasure craft coating operations when applying extreme high-gloss coatings.

(c) Extensions. Any person subject to 310 CMR 7.18(11)(a)2. or 3. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(11)(a)2. or 3. by complying with 310 CMR 7.18(11)(g). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(11)(a)2. or 3. for persons applying under 310 CMR 7.18(11)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

- 1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;
- 2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;
- 3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation

or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and

4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(11)(d).

(b) Reasonably Available Control Technology Requirements.

1. If more than one emission limitation applies to any specific coating, then the coating shall comply with the least stringent.

<u>Table 310 CMR 7.18(11)(d)1.</u>	
Emission Limitations	
Surface Coating of Miscellaneous Metal Parts and Products	
Emission Source	Emission Limitation* Pounds of VOC per gallon of solids applied
Clear Coatings	10.3
Coating line that is air-dried or forced warm-air dried at temperatures up to 90°C	6.7
Extreme Performance Coating	6.7
All other coatings and coating lines	5.1

*If more than one emission limitation above applies to a specific coating, then the least stringent emission limitation shall be applied.

2. Any person subject to 310 CMR 7.18(11)(a)2. or 3. shall limit VOC emissions by using only coatings having a VOC content no greater than the emission limitations listed in Tables 310 CMR 7.18(11)(d)2.a. through d. or by complying with the requirement in 310 CMR 7.18(11)(d)3. If a coating can be classified in more than one coating category in 310 CMR 7.18(11)(d), then the least stringent coating category limitation shall apply.

Table 310 CMR 7.18(11)(d)2.a.				
RACT Emission Limitations for Surface Coating of Miscellaneous Metal Parts and Products				
	Mass of VOC per volume of coating less water and exempt compounds, as applied			
	Air-Dried		Baked	
Coating Category	kg/l coating	lb/gal coating	kg/l coating	lb/gal coating
General, One-Component	0.34	2.8	0.28	2.3
General, Multi-Component	0.34	2.8	0.28	2.3
Camouflage	0.42	3.5	0.42	3.5
Electric Insulating Varnish	0.42	3.5	0.42	3.5
Etching Filler	0.42	3.5	0.42	3.5
Extreme High-Gloss	0.42	3.5	0.36	3.0
Extreme Performance	0.42	3.5	0.36	3.0
Heat-Resistant	0.42	3.5	0.36	3.0
High Performance Architectural	0.74	6.2	0.74	6.2
High Temperature	0.42	3.5	0.42	3.5
Metallic	0.42	3.5	0.42	3.5
Military Specification	0.34	2.8	0.28	2.3
Mold-Seal	0.42	3.5	0.42	3.5
Pan Backing	0.42	3.5	0.42	3.5
Prefabricated Architectural One & Multi-Component	0.42	3.5	0.28	2.3
Pretreatment Coatings	0.42	3.5	0.42	3.5
Repair and Touch-Up	0.42	3.5	0.36	3.0
Silicone-Release	0.42	3.5	0.42	3.5
Solar-Absorbent	0.42	3.5	0.36	3.0
Vacuum-Metallizing	0.42	3.5	0.42	3.5
Drum Coating - New - Exterior	0.34	2.8	0.34	2.8
Drum Coating - New - Interior	0.42	3.5	0.42	3.5
Drum Coating - Reconditioned - Exterior	0.42	3.5	0.42	3.5
Drum Coating - Reconditioned - Interior	0.50	4.2	0.50	4.2

Table 310 CMR 7.18(11)(d)2.b.				
RACT Emission Limitations for Surface Coating of Miscellaneous Metal Parts and Products				
	Mass of VOC per volume of coating solids, as applied			
	Air-Dried		Baked	
Coating Category	kg/l solids	lb/gal solids	kg/l solids	lb/gal solids
General, One-Component	0.54	4.52	0.40	3.35
General, Multi-Component	0.54	4.52	0.40	3.35
Camouflage	0.80	6.67	0.80	6.67
Electric Insulating Varnish	0.80	6.67	0.80	6.67
Etching Filler	0.80	6.67	0.80	6.67
Extreme High-Gloss	0.80	6.67	0.61	5.06
Extreme Performance	0.80	6.67	0.61	5.06
Heat-Resistant	0.80	6.67	0.61	5.06
High Performance Architectural	4.56	38.0	4.56	38.0
High Temperature	0.80	6.67	0.80	6.67
Metallic	0.80	6.67	0.80	6.67
Military Specification	0.54	4.52	0.40	3.35
Mold-Seal	0.80	6.67	0.80	6.67
Pan Backing	0.80	6.67	0.80	6.67
Prefabricated Architectural One & Multi-Component	0.80	6.67	0.40	3.35
Pretreatment Coatings	0.80	6.67	0.80	6.67
Repair and Touch-Up	0.80	6.67	0.80	6.67
Silicone-Release	0.80	6.67	0.80	6.67
Solar-Absorbent	0.80	6.67	0.61	5.06
Vacuum-Metallizing	0.80	6.67	0.80	6.67
Drum Coating - New - Exterior	0.54	4.52	0.54	4.52
Drum Coating - New - Interior	0.80	6.67	0.80	6.67
Drum Coating - Reconditioned - Exterior	0.80	6.67	0.80	6.67
Drum Coating - Reconditioned - Interior	1.17	9.78	1.17	9.78

Table 310 CMR 7.18(11)(d)2.c. RACT Emission Limitations for Pleasure Craft Surface Coatings				
Coating Category	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
	kg/l coating	lb/gal coating	kg/l solids	lb/gal solids
Extreme High Gloss Topcoat	0.60	5.0	1.87	15.6
High Gloss Topcoat	0.42	3.5	0.80	6.7
Pretreatment Wash Primers	0.78	6.5	6.67	55.6
Finish Primer/Surfacer	0.42	3.5	0.80	6.7
High Build Primer Surfacer	0.34	2.8	0.55	4.6
Aluminum Substrate Antifoulant Coating	0.56	4.7	1.53	12.8
Antifouling Sealer/Tie Coat	0.42	3.5	0.80	6.7
Other Substrate Antifoulant Coating	0.40	3.4	0.75	6.3
All other pleasure craft surface coatings for metal or plastic	0.42	3.5	0.80	6.7

Table 310 CMR 7.18(11)(d)2.d. RACT Emission Limitations for Motor Vehicle Materials		
Coating Category	Mass of VOC per volume of coating less water and exempt compounds, as applied	
	kg/l coating	lb/gal coating
Motor vehicle cavity wax; Motor vehicle sealer; Motor vehicle deadener; Motor vehicle underbody coating; Motor vehicle trunk interior coating	0.65	5.4
Motor vehicle bedliner; Motor vehicle gasket/gasket sealing material	0.20	1.7
Motor vehicle lubricating wax/compound	0.70	5.8

3. Any person may achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment instead of complying with the requirements of 310 CMR 7.18(11)(d)2.

(e) Application Methods. Unless complying with 310 CMR 7.18(11)(a)2. or 3. by means of 310 CMR 7.18(11)(d)3., all coatings shall be applied using one or more of the following:

- 1. electrostatic application;**
- 2. HVLP spray;**
- 3. flow coat;**
- 4. roller coat;**
- 5. dip coat , including electrodeposition;**
- 6. airless spray;**
- 7. air-assisted airless spray; or**
- 8. a coating application method capable of achieving a transfer efficiency equivalent to or greater than that achieved by HVLP, as approved by EPA.**

(f) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(11) shall comply with the work practices of 310 CMR 7.18(31)(e).

(g) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(11)(a)1., 2., or 3. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(11)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(11)(a)2. or 3. who chooses to apply for an extension under 310 CMR 7.18(11)(c) shall comply with 310 CMR 7.18(20).

~~(e) Any person subject to 310 CMR 7.18(11)(a) shall maintain continuous compliance at all times. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance shall not include any considerations of transfer efficiency.~~

(dh) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(11)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for ~~three~~ **five** years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; and
6. any other requirements specified by the Department in any approval(s) ~~and/or~~ order(s) issued to the person.

(ei) Testing Requirements. ~~Any P~~persons subject to 310 CMR 7.18(11)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(11). Testing shall be conducted in accordance with EPA Method 24 ~~and/or~~ Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **If acceptable to the Department and EPA, manufacturer's formulation data may be used to demonstrate compliance with coating VOC content limitations. In the case of a dispute, the VOC content determined using the EPA Method shall prevail, unless a person is able to demonstrate to the Department and EPA that the manufacturer's formulation data are correct. EPA Method 25A shall be used when:**

- 1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

(12) U Graphic Arts.

(a) **Applicability.**

1. On or after January 1, 1994, and before [2 years after promulgation date], no person who owns, leases, operates or controls packaging rotogravure ~~or publication rotogravure printing~~ lines (except such printing presses or operations at a facility subject to 310 CMR 7.26(20) through (29)), which have the potential to emit equal to or greater than 50 tons per year of volatile organic compounds (VOC) shall cause, suffer, allow or permit the operation of said lines unless: the requirements of 310 CMR 7.18(12)(d)1. and (f) through (h) are met.

2. On or after [2 years after promulgation date], any person who owns, leases, operates or controls a packaging rotogravure printing line or packaging flexographic printing line, which has the potential to emit, before any application of add-on air pollution capture and control equipment, equal to or greater than 25 tons per rolling 12 month period of VOC shall comply with 310 CMR 7.18(12)(c), (d)2., and (f) through (h) at that printing line.

3. On or after [promulgation date], any person who owns, leases, operates, or controls packaging rotogravure printing operations or packaging flexographic printing operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(12)(e), (g) and (h).

(b) Exemptions. The requirements of 310 CMR 7.18(12)(a)2. do not apply provided the person obtains and complies with an enforceable emission limitation which restricts the potential emissions of the printing line to below 25 tons per year.

(c) Extensions.

1. Any person subject to 310 CMR 7.18(12)(a)2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(12)(a)2. by complying with 310 CMR 7.18(12)(f). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(12)(a)2. for persons applying under 310 CMR 7.18(12)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

a. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;

b. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;

c. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and

d. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(12)(d).

(d) Reasonably Available Control Technology Requirements.

1. Packaging Rotogravure Printing Lines.

1a. The volatile portion of the ink, as applied to the substrate contains 25.0% or less by volume of volatile organic compounds and 75.0% or more by volume of water; or,

2b. The ink (less water) as it is applied to the substrate contains 60.0% by volume or more non-volatile materials; or,

3c. The owner or operator installs and operates:

ai. A carbon adsorption system which reduces the volatile organic emissions by at least 90.0% by weight; or,

bii. an incinerator system which oxidizes at least 90.0% by weight of the volatile organic compounds emitted; or,

eiii. an alternative volatile organic compound emission reduction system demonstrated to have at least 90.0% reduction efficiency by weight; and,

dii. A capture system must be used in conjunction with any emission control systems installed pursuant to 310 CMR 7.18(12)(~~ad~~)**1.c.i.3.a.** through **iii.3.e.** inclusive. The design and operation of said capture system must be consistent with good engineering practice and is required to provide for an overall reduction in volatile organic compound emissions of at least: ~~75.0% where publication rotogravure process is employed;~~ 65.0% where packaging rotogravure process is employed.

2. Packaging Rotogravure and Packaging Flexographic Printing Lines. Any person subject to 310 CMR 7.18(12)(a)2. shall limit VOC emissions by complying with one or more of 310 CMR 7.18(12)(d)2.a. or b.

a. Capture and Control requirements.

i. A press first installed prior to March 14, 1995 and controlled by an add-on air pollution control device whose first installation date was prior to [1 year after promulgation date] shall achieve at least 65.0% overall control by weight of the VOC emitted.

ii. A press first installed prior to March 14, 1995 and controlled by an add-on air pollution control device whose first installation date was on or after [1 year after promulgation date] shall achieve at least 70.0% overall control by weight of the VOC emitted.

iii. A press first installed on or after March 14, 1995 and controlled by an add-on air pollution control device whose first installation date was prior to [1 year after promulgation date] shall achieve at least 75.0% overall control by weight of the VOC emitted.

iv. A press first installed on or after March 14, 1995 and controlled by an add-on air pollution control device whose first installation date was on or after [1 year after promulgation date] shall achieve at least 80.0% overall control by weight of the VOC emitted.

b. VOC Content Limit. The volatile portion of inks, coatings and adhesives shall contain no more than either 0.8 kg VOC/kg solids applied or 0.16 kg VOC/kg material applied. The VOC content limitations may be met by averaging the VOC content of materials used on a single press (i.e., within a line).

(e) Work Practices and Emission Requirements for Printing and Cleaning Operations.

1. Any person subject to 310 CMR 7.18(12) shall comply with the work practices of 310 CMR 7.18(31)(e).

2. Any person subject to 310 CMR 7.18(12) shall only use cleanup solutions that have a VOC composite partial pressure equal to or less than 25 mm Hg at 20°C (68°F).

(f) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(12)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(12)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(12)(a)2. who chooses to apply for an extension under 310 CMR 7.18(12)(c) shall comply with 310 CMR 7.18(20).

(ge) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(12)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for ~~three~~five years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of ink(s), coating(s) and adhesive(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any ink(s), coating(s) and adhesive(s) used;
4. actual operational and emissions characteristics of the ~~eo~~apprinting line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; and
6. any other requirements specified by the Department in any approval(s) ~~and/or~~ order(s) issued to the person.

(hd) Testing Requirements. ~~Any p~~Persons subject to 310 CMR 7.18(12)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(12). Testing shall be conducted in accordance with EPA Method 24, Method 24A ~~and/or~~ Method 25 as described in CFR Title 40 Part 60, EPA Methods 204 and 204A through F of CFR Title 40 Part 51 Appendix M or by other methods approved by the Department and EPA. EPA Method 25A shall be used when:

1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;
2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or
3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.

~~(e) The Department reserves the right to initiate enforcement action against any person who failed to meet the previous requirements of 310 CMR 7.18(12) in effect from January 1, 1983 until January 1, 1994, where the facility size cutoff in 310 CMR 7.18(12)(a) was 100 tons per year.~~

(14) U Paper, Film, and Foil Surface Coating.

(a) Applicability.

1. On or after December 31, 1982, unless granted an extension by the Department until January 1, 1987, or unless the facility is subject to 310 CMR 7.26(20) through (29), no person who owns, leases, operates, or controls a paper, film, or foil surface coating line which emits, before any application of air pollution control equipment, in excess of 15 pounds per day of volatile organic compounds (VOC) shall cause, suffer, allow or permit emissions therefrom in excess of 4.8 pounds of volatile organic compounds per gallon of solids applied the requirements of 310 CMR 7.18(14)(d)1. Such person shall also comply with 310 CMR 7.18(14)(f) through (h).

2. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls a paper, film, or foil surface coating line, which has the potential to emit, before any application of add-on air pollution capture and control equipment, equal to or greater than 25 tons per rolling 12 month period of VOC shall comply with 310 CMR 7.18(14)(c), (d)2., and (f) through (h) at that coating line.

3. On or after [promulgation date], any person who owns, leases, operates, or controls paper, film, or foil surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(14)(e) for coating and cleaning operations.

4. 310 CMR 7.18(14) does not apply to coating application on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press.

~~(b) Any person subject to 310 CMR 7.18(14)(a) shall maintain continuous compliance at all times. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance shall not include any considerations of transfer efficiency.~~

(b) Exemptions. The requirements of 310 CMR 7.18(14)(a)2. do not apply provided the person obtains and complies with an enforceable emission limitation which restricts the potential emissions of the coating line to below 25 tons per year.

(c) Extensions. Any person subject to 310 CMR 7.18(14)(a)2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(14)(a)2. by complying with 310 CMR 7.18(14)(f). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(14)(a)2. for persons applying under 310 CMR 7.18(14)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;

2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;

3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation

or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and

4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(14)(d).

(d) Reasonably Available Control Technology Requirements.

1. Any person subject to 310 CMR 7.18(14)(a)1. shall not exceed a limitation of 4.8 pounds of VOC per gallon of solids applied.

2. Any person subject to 310 CMR 7.18(14)(a)2. shall limit VOC emissions by complying with one or more of 310 CMR 7.18(14)(d)2.a., b., or c.

a. Achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment at that coating line.

b. A paper, film, or foil coating line that is not a pressure sensitive tape and label coating line shall comply with:

i. a VOC content of no greater than 0.40 pounds of VOC per pound of solids applied at that coating line; or

ii. a VOC content of no greater than 0.08 pounds of VOC per pound of coating at that coating line; or

iii. a combination of VOC content and add-on air pollution capture and control equipment to achieve an overall VOC control efficiency of at least 90 percent by weight; or

iv. within line averaging to achieve compliance with 310 CMR 7.18(14)(d)2.b.i. or ii.

c. A paper, film, or foil coating line that is a pressure sensitive tape and label coating line shall comply with:

i. a VOC content of no greater than 0.20 pounds of VOC per pound of solids applied at that coating line; or

ii. a VOC content of no greater than 0.067 pounds of VOC per pound of coating at that coating line; or

iii. a combination of VOC content and add-on air pollution capture and control equipment to achieve an overall VOC control efficiency of at least 90 percent by weight; or

iv. within line averaging to achieve compliance with 310 CMR 7.18(14)(d)2.c.i. or ii.

(e) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(14) shall comply with the work practices of 310 CMR 7.18(31)(e).

(f) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(14)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(14)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(14)(a)2. who chooses to apply for an extension under 310 CMR 7.18(14)(c) shall comply with 310 CMR 7.18(20).

(g) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(14)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for ~~five~~ three years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved compliance plan or upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; and

6. any other requirements specified by the Department in any approval(s) ~~and~~/or order(s) issued to the person.

(dh) Testing Requirements. Any ~~p~~Persons subject to 310 CMR 7.18(14)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(14). Testing shall be conducted in accordance with EPA Method 24 ~~and~~/or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. EPA Method 25A shall be used when:

1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;
2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or
3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.

(20) Emission Control Plans for Implementation of Reasonably Available Control Technology.

(a) General Applicability and Submittal Requirements. Any person who owns, leases, operates or controls a facility that becomes subject to a 310 CMR 7.18 subsection requirement to submit an emission control plan ~~(2)(b), (2)(c), (2)(g), (2)(h), (17), (21) through (27), (28)(e), (29), or (30)(e)~~ 7. after January 1, 1992, shall submit an emission control plan ~~to the Department~~ for review and approval by the Department prior to implementation of RACT. An emission control plan is required to amend an emissions averaging plan issued pursuant to 310 CMR 7.18(2)(b) or 310 CMR 7.18(2)(g), or an approval issued under 310 CMR 7.18(2)(h).

(21) Surface Coating of Plastic Parts.

(a) Applicability. ~~310 CMR 7.18(21) applies in its entirety to any person who owns, leases, operates or controls plastic parts surface coating line(s) which in total have the potential to emit, before the application of air pollution control equipment, equal to or greater than 50 tons per year of volatile organic compounds.~~

1. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls plastic parts surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of volatile organic compounds (VOC) per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(21)(c) through (e) and (g) through (i).

2. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls plastic parts surface coating operations and miscellaneous metal parts and products surface coating operations and related cleaning operations within the same facility, which in total emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(21)(c) through (e) and (g) through (i). The miscellaneous metal parts and products surface coating operations are subject to 310 CMR 7.18(11).

3. On or after [promulgation date], any person who owns, leases, operates, or controls plastic parts surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(21)(f) for coating and cleaning operations.

~~(b) Reasonably Available Control Technology Requirements. On or after January 1, 1994, unless exempted under 310 CMR 7.18(21)(e), or granted a non-renewable extension by the Department under 310 CMR 7.18(21)(d), no person subject to 310 CMR 7.18(21)(a) shall cause, suffer, allow or~~

~~permit emissions from any plastic parts coating line in excess of the emission limitations set forth in 310 CMR 7.18(21)(e).~~

~~(eh) Exemptions. The requirements of 310 CMR 7.18(21)(b) do not apply to:~~

- ~~1. a. any person subject to 310 CMR 7.18(21)(a) who is able to demonstrate to the Department that, since January 1, 1990, the plastic parts coating line(s) have not, in total, emitted, before the application of air pollution control equipment, greater than or equal to 50 tons per year of volatile organic compounds; and~~
- ~~b. provided the person obtains and complies with a federally enforceable emission limit which restricts the potential emissions to below 50 tons per year; and~~
- ~~c. provided the person complies with of 310 CMR 7.18(21)(i).~~

~~2. any person subject to 310 CMR 7.18(21)(a) who, according to the Department, has complied with 310 CMR 7.18(17) prior to January 1, 1993.~~

1. The miscellaneous plastic parts coatings requirements of 310 CMR 7.18(21)(d)1. and 2. do not apply to:

- a. touch-up and repair coatings;
- b. stencil coatings applied on clear or transparent substrates;
- c. clear or translucent coatings;
- d. coatings applied at a paint manufacturing facility while conducting performance tests on the coatings;
- e. reflective coating applied to highway cones;
- f. mask coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches;
- g. EMI/RFI shielding coatings; or
- h. heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per year, per facility.

2. The automotive/transportation coatings requirements of 310 CMR 7.18(21)(d)1.b. and 2., and the business machine coatings requirements of 310 CMR 7.18(21)(d)1.c. and 2., do not apply to:

- a. texture coatings;
- b. vacuum metallizing coatings;
- c. gloss reducers;
- d. texture topcoats;
- e. adhesion primers;
- f. electrostatic preparation coatings;
- g. resist coatings; or
- h. stencil coatings.

3. The requirements of 310 CMR 7.18(21)(e) do not apply to airbrush operations using five gallons or less per year of coating at a miscellaneous plastic parts coating operation.

4. The requirements of 310 CMR 7.18(21)(e) do not apply to pleasure craft coating operations when applying extreme high-gloss coatings.

~~(dc) Extensions. 1. Any person subject to 310 CMR 7.18(21)(ba)1. or 2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(21)(ba)1. or 2. by complying with 310 CMR 7.18(21)(g). The person must apply to the Department for the non-renewable extension at the same time the person submits the emission control plan required by 310 CMR 7.18(20) and 310 CMR 7.18(21)(f).~~

2. The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(21)(ba)1. or 2. for persons applying under 310 CMR 7.18(21)(c) until no later than [two years after promulgation date] January 1, 1995, provided the emission control plan submitted for approval under 310 CMR 7.18(20), meets the following criteria in addition to those of 310 CMR 7.18(20):

- ~~a. the emission control plan proposes to reduce emissions through toxics use reduction techniques as defined in M.G.L. c. 21I; and,~~
- ~~b. the toxics use reduction techniques contained in the emission control plan are approved by a Toxics Use Reduction Planner certified under M.G.L. c. 21I; (this may be an employee at the facility who is certified as Toxics Use Reduction Planner); and,~~
- ~~c. implementation of the plan must meet the emission limitations of 310 CMR 7.18(21)(e)2. through toxics use reduction techniques; and,~~
- ~~d. the emission control plan must also contain contingency measures to meet the RACT emission limits of 310 CMR 7.18(21)(e)1.; such measures must automatically take effect if the emissions reductions achieved by toxics use reduction techniques do not satisfy 310 CMR 7.18(21)(e)2.~~

1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;

2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;

3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and

4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(21)(d).

(ed) RACT Emissions Limitations.

1. If a person subject to 310 CMR 7.18(21)(b) does not use add-on air pollution control equipment to implement RACT, then the person shall comply with the emissions limitations in Table 310 CMR 7.18(21)(e)1. If more than one emission limitation applies to any one coating, then that coating must comply with the least stringent emission limitation.

Table 310 CMR 7.18(21)(e)1. RACT Emission Limitation for Surface Coating of Plastic Parts using Low/no VOC Coatings	
Emission Source	Emission Limitation (lbs VOC/gal solids as applied)
Business Machines/Miscellaneous Plastic Parts	
— Color coating	3.4
— Color/texture coating	3.4
— Primer Coating	1.4
— EMI/RFI	8.8
Automotive Interior Parts Coating	
— Colorecoat	5.7
— Primer	6.7
Automotive Exterior Flexible Parts Coating	
— Colorecoat	9.3
— Clearcoat	6.7
— Primer	11.6
Automotive Exterior Rigid (non-flexible) Parts Coating	
— Colorecoat	9.3
— Clearcoat	6.7
— Primer	6.7

~~2. If a person subject to 310 CMR 7.18(21)(b) does use add-on air pollution control equipment to implement RACT, then the person shall comply with the emissions limitations in Table 310 CMR 7.18(21)(e)2. If more than one emission limitation applies to anyone coating, then that coating must comply with the least stringent emission limitation.~~

Table 310 CMR 7.18(21)(e)2. RACT Emission Limitation for Surface Coating of Plastic Parts using Add-on Air Pollution Controls	
Emission Source	Emission Limitation (lbs VOC/gal solids as applied)
Business Machines/Miscellaneous Plastic Parts	
— Color coating	1.7
— Color/texture coating	1.7
— Primer Coating	1.4
— EMI/RFI	1.9
Automotive Exterior Flexible Parts Coating	
— Colorecoat	2.8
— Clearcoat	2.4
— Primer	4.8
Automotive Exterior Rigid (non-flexible) Parts Coating	
— Colorecoat	2.8
— Clearcoat	2.4
— Primer	3.6

1. Any person subject to 310 CMR 7.18(21)(a)1. or 2. shall limit VOC emissions by using only coatings having a VOC content no greater than the emission limitations listed in Tables 310 CMR 7.18(21)(d)1.a. through e. or by complying with the requirement in 310 CMR 7.18(21)(d)2. If a coating can be classified in more than one coating category in 310 CMR 7.18(21)(d), then the least stringent coating category limitation shall apply.

Table 310 CMR 7.18(21)(d)1.a. RACT Emission Limitations for Surface Coating of Miscellaneous Plastic Parts				
	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
Coating Category	kg/l coating	lb/gal coating	kg/l solids	lb/gal solids
General, One Component	0.28	2.3	0.40	3.35
General, Multi-Component	0.42	3.5	0.80	6.67
Electric Dissipating Coatings and Shock-Free Coatings	0.80	6.7	8.96	74.7
Extreme Performance (2-pack)	0.42	3.5	0.80	6.67
Military Specification (1-pack)	0.34	2.8	0.54	4.52
Military Specification (2-pack)	0.42	3.5	0.80	6.67
Metallic	0.42	3.5	0.80	6.67
Mold-Seal	0.76	6.3	5.24	43.7
Multi-colored Coatings	0.68	5.7	3.04	25.3
Optical Coatings	0.80	6.7	8.96	74.7
Vacuum-Metallizing	0.80	6.7	8.96	74.7

Table 310 CMR 7.18(21)(d)1.b. RACT Emission Limitations for Automotive/Transportation Coatings¹				
	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
Coating Category	kg/l coating	lb/gal coating	kg/l solids	lb/gal solids
High Bake Coatings - Interior and Exterior Parts				
Flexible Primer	0.54	4.5	1.39	11.58
Non-Flexible Primer	0.42	3.5	0.80	6.67
Basecoat	0.52	4.3	1.24	10.34
Clear Coat	0.48	4.0	1.05	8.76
Non-Basecoat/Clear Coat	0.52	4.3	1.24	10.34
Low Bake/Air-Dried coatings- Exterior Parts				
Primers	0.58	4.8	1.66	13.80
Basecoat	0.60	5.0	1.87	15.59
Clear Coat	0.54	4.5	1.39	11.58
Non-Basecoat/Clear Coat	0.60	5.0	1.87	15.59
Low Bake/Air-Dried Coatings - Interior Parts	0.60	5.0	1.87	15.59
Touchup and Repair Coatings	0.62	5.2	2.13	17.72

¹For automotive coatings which are red, yellow, and black, except touch-up and repair coatings, the limitation is determined by multiplying the appropriate limitation in Table 310 CMR 7.18(21)(d)1.b. by 1.15.

Table 310 CMR 7.18(21)(d)1.c. RACT Emission Limitations for Business Machine Coatings				
	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
Coating Category	kg/l coating	lb/gal coating	kg/l solids	lb/gal solids
Primers	0.35	2.9	0.57	4.80
Topcoat	0.35	2.9	0.57	4.80
Texture Coat	0.35	2.9	0.57	4.80
Fog Coat ¹	0.26	2.2	0.38	3.14
Touchup and Repair	0.35	2.9	0.57	4.80

¹ A fog coat shall not be applied at a thickness of more than 0.5 mils of coating solids.

Table 310 CMR 7.18(21)(d)1.d. RACT Emission Limitations for Pleasure Craft Surface Coatings				
Coating Category	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
	kg/l coating	lb/gal coating	kg/l solids	lb/gal solids
Extreme High Gloss Topcoat	0.60	5.0	1.87	15.6
High Gloss Topcoat	0.42	3.5	0.80	6.7
Pretreatment Wash Primers	0.78	6.5	6.67	55.6
Finish Primer/Surfacer	0.42	3.5	0.80	6.7
High Build Primer Surfacer	0.34	2.8	0.55	4.6
Aluminum Substrate Antifoulant Coating	0.56	4.7	1.53	12.8
Antifouling Sealer/Tie Coat	0.42	3.5	0.80	6.7
Other Substrate Antifoulant Coating	0.40	3.4	0.75	6.3
All other pleasure craft surface coatings for metal or plastic	0.42	3.5	0.80	6.7

Table 310 CMR 7.18(21)(d)1.e. RACT Emission Limitations for Motor Vehicle Materials		
Coating Category	Mass of VOC per volume of coating less water and exempt compounds, as applied	
	kg/l coating	lb/gal coating
Motor vehicle cavity wax; Motor vehicle sealer; Motor vehicle deadener; Motor vehicle underbody coating; Motor vehicle trunk interior coating	0.65	5.4
Motor vehicle bedliner; Motor vehicle gasket/gasket sealing material	0.20	1.7
Motor vehicle lubricating wax/compound	0.70	5.8

2. Any person may achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment instead of complying with the requirements of 310 CMR 7.18(21)(d)1.

(e) Application Methods. Unless complying with 310 CMR 7.18(21)(a)1. or 2. by means of 310 CMR 7.18(21)(d)2., all coatings shall be applied using one or more of the following:

1. electrostatic application;
2. HVLP spray;
3. flow coat;
4. roller coat;
5. dip coat , including electrodeposition;
6. airless spray;
7. air-assisted airless spray; or
8. a coating application method capable of achieving a transfer efficiency equivalent to or greater than that achieved by HVLP, as approved by EPA.

(f) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(21) shall comply with the work practices of 310 CMR 7.18(31)(e).

(f) Plan Submittal Requirements. Any person who owns, leases, operates or controls a plastic parts coating line(s) subject to 310 CMR 7.18(21)(a) must submit an emissions

~~control plan, and have the plan approved by the Department under 310 CMR 7.18(20).~~

(g) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(21)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(21)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(21)(a)1. or 2. who chooses to apply for an extension under 310 CMR 7.18(21)(c) shall comply with 310 CMR 7.18(20).

~~(g) Continuous Compliance. Any person who owns, leases, operates or controls a coating line(s) subject to 310 CMR 7.18(21)(a) shall maintain continuous compliance at all times with their approved emissions control plan. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance may include considerations of transfer efficiency provided that the baseline transfer efficiency is equal to or greater than 65%, and the transfer efficiency test method is detailed in the emission control plan approved by the Department.~~

(h) ~~Recordkeeping Requirements.~~ Any person ~~who owns, leases, operates or controls a coating line(s)~~ subject to 310 CMR 7.18(21)(a) shall prepare and maintain ~~daily~~ records sufficient to demonstrate compliance consistent with ~~the applicable averaging time as stated in~~ 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for five years and shall be made available to representatives of the Department and EPA upon request. Such records shall include, but are not limited to:

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; **and**
6. any other requirements specified by the Department in any approval(s) issued under 310 CMR 7.18(20) or any order(s) issued to the person.

(i) ~~Testing Requirements.~~ Any person ~~who owns, leases, operates or controls a coating line(s)~~ subject to 310 CMR 7.18(21)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(21). Testing shall be conducted in accordance with EPA Method 24 ~~and/or~~ Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **If acceptable to the Department and EPA, manufacturer's formulation data may be used to demonstrate compliance with coating VOC content limitations. In the case of a dispute, the VOC content determined using the EPA Method shall prevail, unless a person is able to demonstrate to the satisfaction of the Department and EPA that the manufacturer's formulation data are correct. EPA Method 25A shall be used when:**

- 1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

(24) Flat Wood Paneling Surface Coating.

(a) Applicability.

1. On or after January 1, 1994, and prior to [2 years after promulgation date], 310 CMR 7.18(24)(d)1. and (f) through (h) applies in its entirety to any person who owns, leases, operates or controls a flat wood paneling surface coating line(s) which emits, before the application of air pollution control equipment, equal to or greater than 15 pounds per day of volatile organic compounds **(VOC).**

2. On and after [2 years after promulgation date], any person who owns, leases, operates, or controls flat wood paneling surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(24)(c), (d)2., and (f) through (h).

3. On or after [promulgation date], any person who owns, leases, operates, or controls flat wood paneling surface coating operations and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(24)(e) for coating and cleaning operations.

~~(b) Reasonably Available Control Technology Requirements. On or after January 1, 1994, unless exempted by 310 CMR 7.18(24)(e) or granted a non-renewable extension by the Department under 310 CMR 7.18(24)(d), no person subject to 310 CMR 7.18(24)(a) shall cause, suffer, allow or permit emissions flat wood paneling surface coating line in excess of the emission limitations set forth in either 310 CMR 7.18(24)(e).~~

~~(eb) Exemptions.~~

~~1. The requirements of 310 CMR 7.18(24)(b)1. do not apply to:~~

- ~~1. a. any person subject to 310 CMR 7.18(24)(a)1. who is able to demonstrate to the Department that, since January 1, 1990, the flat wood paneling surface coating line(s) have not, in total, emitted, before the application of air pollution control equipment, greater than or equal to 15 pounds per day of volatile organic compounds; and~~
- ~~b. provided the person obtains and complies with a federally enforceable emission limit which restricts the potential emissions to below 15 pounds per day; and~~
- ~~c. provided the person complies with the requirements of 310 CMR 7.18(24)(ih).~~

~~2. The requirements of 310 CMR 7.18(24) do not apply to any person subject to 310 CMR 7.18(24)(a)1. who, according to the Department, has complied with 310 CMR 7.18(17) prior to January 1, 1993.~~

~~(dc) Extensions.~~

~~1. Any person subject to 310 CMR 7.18(24)(b) may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(24)(b). The person must apply to the Department for the non-renewable extension at the same time the person submits the emission control plan required by 310 CMR 7.18(20) and 310 CMR 7.18(24)(f).~~

~~2. The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(24)(b) until no later than January 1, 1995, provided the emission control plan submitted for approval 7.18(20), meets the following criteria in addition to those of 310 CMR 7.18(20):~~

- ~~a. the emission control plan proposes to reduce emissions through toxics use reduction techniques as defined in M.G.L. c. 21H; and,~~
- ~~b. the toxics use reduction techniques contained in the emission control plan are approved by a Toxics Use Reduction Planner certified under M.G.L. c. 21H; (this may be an employee at the facility who is certified as Toxics Use Reduction Planner); and,~~
- ~~c. implementation of the plan must meet the emission limitations of 310 CMR 7.18(24)(e) or achieve a 85% reduction in emissions, whichever is greater, through toxics use reduction techniques, as calculated on a mass of VOC emitted per gallon of solids as applied or per unit of production; and,~~
- ~~d. the emission control plan must also contain contingency measures to meet RACT emission limitations of 310 CMR 7.18(24)(e); such measures must automatically take effect if the emissions reductions achieved through toxics use reduction techniques do not satisfy 310 CMR 7.18(24)(e).~~

Any person subject to 310 CMR 7.18(24)(a)2. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(24)(a)2. by complying with 310 CMR 7.18(24)(f). The Department will consider a non-renewable extension of the deadline in

310 CMR 7.18(24)(a)2. for persons applying under 310 CMR 7.18(24)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

- 1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;**
- 2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;**
- 3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and**
- 4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(24)(d).**

(ed) Reasonably Available Control Technology Requirements.

1. Any person subject to 310 CMR 7.18(24)(~~ba~~)**1**. shall comply with the emissions limits in Table 310 CMR 7.18(24)(**ed**)1. If more than one emission limitation applies then the coating must comply with the least stringent emission limitation.

Table 310 CMR 7.18(24)(<u>ed</u>)1. RACT Emission Limitations for Surface Coating of Flat Wood Panels	
Emission Source	Emission Limitation (lbs VOC/1000 square feet coated)
Printed hardwood panels and thin particleboard panels	6.0
Natural finish hardwood plywood panels	12.0
Class II finish on hardboard panels	10.0

2. Any person subject to 310 CMR 7.18(24)(a)2. shall limit VOC emissions by using only coatings having a VOC content no greater than the emission limitations in Table 310 CMR 7.18(24)(d)2. or by complying with the requirement in 310 CMR 7.18(24)(d)3.

Table 310 CMR 7.18(24)(d)2. RACT Emission Limitations for Surface Coating of Flat Wood Panels				
Coatings Applied to the Following Flat Wood Paneling Categories	Mass of VOC per volume of coating less water and exempt compounds, as applied		Mass of VOC per volume of coating solids, as applied	
	lb/gal coating	grams/l coating	lb/gal solids	grams/l solids
Printed interior panels made of hardwood, plywood, or thin particleboard; Natural finish hardwood plywood panels; Class II finish on hardboard panels; Tileboard; Exterior siding	2.1	250	2.9	350

3. Any person may achieve an overall VOC control efficiency of at least 90 percent by weight using add-on air pollution capture and control equipment instead of complying with the requirements of 310 CMR 7.18(24)(d)2.

(e) Work Practices for Coating and Cleaning Operations. Any person subject to 310 CMR 7.18(24) shall comply with the work practices of 310 CMR 7.18(31)(e).

(f) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(24)(a)1. or 2. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(24)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(24)(a)2. who chooses to apply for an extension under 310 CMR 7.18(24)(c) shall comply with 310 CMR 7.18(20).

~~**(f) Plan Submittal Requirements.** Any person who owns, leases, operates or controls a flat wood paneling surface coating line(s) subject to 310 CMR 7.18(24)(a) must submit an emissions control plan, and have the plan approved by the Department under 310 CMR 7.18(20).~~

~~**(g) Continuous Compliance.** Any person who owns, leases, operates or controls a flat wood paneling surface coating line(s) subject to 310 CMR 7.18(24)(a) shall maintain continuous compliance at all times with their approved emissions control plan. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a). Demonstrations of compliance may include considerations of transfer efficiency provided that the baseline transfer efficiency is greater than 65% and the transfer efficiency test method is detailed in the emission control plan (310 CMR 7.18(20)) approved by the Department.~~

~~**(h) Recordkeeping Requirements.** Any person who owns, leases, operates or controls a flat wood paneling surface coating line(s) subject to 310 CMR 7.18(24)(a) shall prepare and maintain daily records sufficient to demonstrate compliance consistent with the applicable averaging time as stated in 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on site for five years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved emission control plan (pursuant to 310 CMR 7.18(20) or upon request. Such records shall include, but are not limited to:~~

1. identity, quantity, formulation and density of coating(s) used;
2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;
3. solids content of any coating(s) used;
4. actual operational and emissions characteristics of the coating line and any appurtenant emissions capture and control equipment;
5. quantity of product processed; **and**
6. any other requirements specified by the Department in any approval(s) issued under 310 CMR 7.18(20) or any order(s) issued to the person.

~~**(i) Testing Requirements.** Any person who owns, leases, operates or controls a flat wood paneling surface coating line(s) subject to 310 CMR 7.18(24)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(24). Testing shall be conducted in accordance with EPA Method 24 **and** or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **EPA Method 25A shall be used when:**~~

- 1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

(25) Offset Lithographic Printing and Letterpress Printing.

(a) Applicability.

1. On or after January 1, 1994, 310 CMR 7.18(25) applies in its entirety to any person who owns, leases, operates or controls a facility with offset lithographic presses which, in total, have the potential to emit, before the application of air pollution control equipment, equal to or greater than 50 tons per year of volatile organic compounds **(VOC) shall comply with 310 CMR 7.18(25)(d)**

through (k) and (m) through (p). On or after [2 years after promulgation date] any person subject to 310 CMR 7.18(25)(a)1. and 2. shall comply with 310 CMR 7.18(25)(l) and is no longer subject to 310 CMR 7.18(25)(e) or (f). Facilities subject to 310 CMR 7.26(20) are not subject to 310 CMR 7.18(25)

2. On or after [2 years after promulgation date], any person who owns, leases, operates or controls a heatset web offset lithographic printing press or a heatset web letterpress printing press, which has the potential to emit, before any application of add-on air pollution capture and control equipment, equal to or greater than 25 tons per rolling 12 month period of VOC from petroleum heatset inks, shall comply with 310 CMR 7.18(25)(d), (l) and (n) through (p).

3. On or after [2 years after promulgation date], any person who owns, leases, operates or controls offset lithographic printing operations and related cleaning operations, which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(25)(d), (g) through (k), (o), and (p).

4. On or after [promulgation date], any person who owns, leases, operates or controls offset lithographic printing operations and related cleaning operations, or letterpress printing operations and related cleaning operations, which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(25)(m).

(b) Reasonably Available Control Technology Requirements. [Reserved.] On or after January 1, 1994, unless exempted by 310 CMR 7.18(25)(e), or granted a non-renewable extension by the Department under 310 CMR 7.18(25)(d), no person subject to 310 CMR 7.18(25)(a) shall cause, suffer, allow, or permit emissions of volatile organic compounds in excess of the emission limitations and standards set forth in 310 CMR 7.18(25)(e) through (l).

(c) Exemptions.

1. The requirements of 310 CMR 7.18(25)(a)1., with the exception of 310 CMR 7.18(25)(l), do not apply to:

a1. ia. any person subject to 310 CMR 7.18(25)(a)1. who is able to demonstrate to the Department that, since January 1, 1990, the offset lithographic presses have not, in total, emitted, before the application of air pollution control equipment, greater than or equal to 50 tons per year of volatile organic compounds; and

iiib. provided the person obtains and complies with a federally enforceable emission limit which restricts the potential emissions of the offset lithographic presses to below 50 tons per year; and,

iiie. provided the person complies with 310 CMR 7.18(25)(k), (ml), and (p).

b2. any person subject to 310 CMR 7.18(25) (a)1. who, according to the Department, has complied with 310 CMR 7.18(17) prior to January 1, 1993.

2. The requirements of 310 CMR 7.18(25)(a)2. do not apply provided:

a. the person obtains and complies with an enforceable emission limitation which restricts the potential emissions of the heatset press to below 25 tons per year;

b. the person is using the heatset press for book printing; or

c. the person is using a heatset press with a maximum web width of 22 inches or less.

3. The requirements of 310 CMR 7.18(25)(a)3. do not apply provided:

a. the person is using a press that has a total fountain solution reservoir of less than one gallon; or

b. the person is using a press that is sheet-fed and has a maximum sheet size of 11 by 17 inches or smaller.

4. Any person subject to 310 CMR 7.18(25)(a)4. may use up to 110 gallons per year of cleaning materials that do not meet 310 CMR 7.18(25)(m)2.

(d) Extensions.

1. Any person subject to 310 CMR 7.18(25)(a)~~2. or 3.~~ may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(25)(a)~~2. or 3. by complying with 310 CMR 7.18(25)(n). The person must apply to the Department for the non-renewable extension at the same time the person submits the emission control plan required by 310 CMR 7.18(20).~~
2. The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(25)(a)~~2. or 3. for persons applying under 310 CMR 7.18(25)(d) until January 1, 1995 no later than [2 years after promulgation date]~~, provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):
 - a. Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;
 - b. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;
 - c. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and,
 - ~~the toxics use reduction techniques contained in the emission control plan are approved by a Toxics Use Reduction Planner certified under M.G.L. c. 21I; (this may be an employee at the facility who is certified as Toxics Use Reduction Planner); and,~~
 - ed. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(25)(l) for persons subject to 310 CMR 7.18(25)(a)2. and 310 CMR 7.18(25)(g) through (k) for persons subject to 310 CMR 7.18(25)(a)3(e) through (l) or achieve an 85% emissions reduction, whichever is greater, through toxics use reduction techniques, as calculated on a mass of VOC emitted per gallon of solids as applied or per unit of production; and,
 - ~~d. the emission control plan must also contain contingency measures to meet the RACT emission limits of 310 CMR 7.18(25)(e) through (l); such measures must automatically take effect if the emissions reductions achieved through toxics use reduction techniques do not satisfy 310 CMR 7.18(25)(e) through (l) or achieve an 85% reduction.~~
- (e) Heatset Offset Lithographic Requirements. Any person subject to 310 CMR 7.18(25)(a)1. who owns, leases, operates, or controls a heatset offset lithographic printing press which is equipped with an air pollution control device used to reduce VOC emissions, and which device was installed on or before November 1, 1992 shall either:
 1. reduce VOC emissions from the dryer exhaust vent by 85% weight; or,
 2. maintain a maximum exhaust VOC concentration of 20 parts per million by volume (ppmv) of non-methane hydrocarbons as carbon in the control device exhaust, whichever is less stringent.
- (f) Heatset Offset Lithographic Requirements. Any person subject to 310 CMR 7.18(25)(a)1. who owns, leases, operates, or controls a heatset offset lithographic printing press which is equipped with an air pollution control device used to reduce VOC emissions, and which device was installed after November 1, 1992 shall either:
 1. reduce VOC emissions from the dryer exhaust vent by 90% weight; or,
 2. maintain a maximum exhaust VOC concentration of 20 parts per million by volume (ppmv) of non-methane hydrocarbons as carbon in the control device exhaust, whichever is less stringent.
- (g) Sheet-fed Offset Lithographic Requirements. Any person subject to 310 CMR 7.18(25)(a)1. or 3. who owns, leases, operates, or controls a sheet-fed offset lithographic press, and who uses alcoholpropanol in the fountain solution, shall:
 1. maintain a VOC concentration of 5% or less by volume, as applied, in the fountain solution; or,
 2. maintain a VOC concentration of 8% or less by volume, as applied, in the fountain solution, and refrigerate the fountain solution to a temperature below 60°F.

(h) Heatset Web-fed Offset Lithographic Requirements. Any person subject to 310 CMR 7.18(25)(a)1. or 3., who owns, leases, operates, or controls a heatset web-fed offset lithographic press which uses alcohopropanol in the fountain solution, shall:

1. Maintain a VOC concentration of 1.6% or less by volume, as applied, in the fountain solution; or,
2. Maintain a VOC concentration of 3% or less by volume, as applied, in the fountain solution, and refrigerate the fountain solution to a temperature below 60°F.

(i) Non-heatset Web-fed Offset Lithographic Printing Requirements. Any person subject to 310 CMR 7.18(25)(a)1. or 3., who owns, leases, operates, or controls a non-heatset web-fed offset lithographic printing press, shall use zero per cent alcohopropanol in the fountain solution, and shall maintain a total VOC concentration in the fountain solution of 2.5% ~~cent~~ or less by weight.

(j) Alcohopropanol Substitute Requirements. Any person subject to 310 CMR 7.18(25)(a)1. or 3., who owns, leases, operates, or controls an offset lithographic press with fountain solution with alcohopropanol substitutes, containing a concentration of VOC in the fountain solution at 3.0% by volume or less, shall be considered in compliance with the VOC emission limitations for fountain solutions contained in 310 CMR 7.18(25).

(k) Fountain Solution Mixing Requirements. Any person subject to 310 CMR 7.18(25)(~~a~~), who owns, leases, operates, or controls an offset lithographic press shall keep the fountain solution mixing tanks covered, except for necessary operator access.

(l) Heatset Web Offset Lithographic Printing Press and Heatset Web Letterpress Printing Press Requirements. Any person subject to 310 CMR 7.18(25)(a)2. who owns, leases, operates, or controls a heatset web offset lithographic printing press or a heatset web letterpress printing press which is equipped with an add-on air pollution capture and control device used to reduce VOC emissions, shall comply with 310 CMR 7.18(25)(l)1.a. or b. or 310 CMR 7.18(25)(l)2.

1. Press control requirements.

a. A heatset dryer controlled by an air pollution control device whose first installation date was prior to [2 years after promulgation date] shall achieve at least 90% VOC control efficiency by weight.

b. A heatset dryer controlled by an air pollution control device whose first installation date was on or after [2 years after promulgation date] shall achieve at least 95% VOC control efficiency by weight.

2. The maximum control device exhaust VOC concentration shall be 20 parts per million by volume dry basis (ppmvd) of VOC as hexane.

(m) Work Practices and Emission Requirements for Printing and Cleaning Operations Cleaning Solution Requirements. Any person subject to 310 CMR 7.18(25)(~~a~~), who owns, leases, operates, or controls an offset lithographic press or letterpress printing press, and who uses cleaning solutions containing VOC to wash ink from the blanket and/or other accessible press components shall meet the following criteria:

1. Any person subject to 310 CMR 7.18(25) shall comply with the work practices of 310 CMR 7.18(31)(e). Cleaning solutions shall be transported and stored in tightly covered containers;

and,

2. Cleaning rags used in conjunction with the cleaning solutions shall be placed, when not in use, in tightly covered containers and collected for proper disposal or recycle.

3. Any person subject to 310 CMR 7.18(25) shall only use cCleanup solutions ~~as used at the press~~ shall that either;

a.(i) do not exceed 30% by weight VOC; or

b.(ii) have a VOC composite partial pressure of 10 mmHg or less at 20°C (68°F).

(nn) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(25)(a)1., 2. or 3. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(25)(e), (f), or (l) shall submit an emission control plan in accordance with ~~must submit an emission control plan, and have the plan approved by the Department under~~ 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(25)(a)2. or 3. who chooses to apply for an extension under 310 CMR 7.18(25)(d) shall comply with 310 CMR 7.18(20).

~~(n) **Continuous Compliance.** Any person subject to 310 CMR 7.18(25)(a) shall maintain continuous compliance at all times with their approved emission control plan. Compliance averaging times will be met in accordance with the requirements of 310 CMR 7.18(2)(a).~~

(o) **Recordkeeping Requirements.** Any person subject to 310 CMR 7.18(25)(a) shall **prepare and** maintain ~~daily~~ records sufficient to demonstrate compliance **with 310 CMR 7.18(2).** Records kept to demonstrate compliance shall be kept onsite for five years and shall be made available to representatives of the Department or EPA upon request. Such records shall include, but are not limited to:

1. Identity, formulation (as determined by the manufacturer's formulation data), **density**, and quantity for each VOC containing material used, including but not limited to:
 - a. ~~alcohol~~**Propanol**;
 - b. ~~alcohol~~**Propanol** substitutes;
 - c. ~~F~~**f**ountain concentrate;
 - d. ~~P~~**p**rinting Ink; **and**
 - e. ~~C~~**c**leaning Solution.
2. For heatset offset lithographic printing presses **and heatset offset letterpress printing presses** using emissions control equipment, the recordkeeping requirements specified in 310 CMR 7.18(2)(e); **and**,
3. For offset lithographic printing presses the percent of VOC by volume in the fountain solution as monitored whenever new fountain solution is mixed, ~~alcoholpropanol~~ is added to the fountain solution, or daily, whichever is more frequent; **and**,
4. For offset lithographic printing presses subject to the refrigeration requirements of 310 CMR 7.18(25)(~~fg~~) or (h), the temperature of the fountain solution as recorded on a once per shift basis; **and**,
5. Total VOC content of each material used for each printing press subject to 310 CMR 7.18(25) (sum of 310 CMR 7.18(25)(o)1.a. through e.); **and**,
6. Total VOC content of **all** materials ~~all~~ used for all printing presses subject to 310 CMR 7.18(25) (sum of 310 CMR 7.18(25)(o)5. for all printing presses); and,
7. any other requirements specified by the Department in any approval(s) issued under 310 CMR 7.18(20) or any order(s) issued to the person.

(p) **Testing Requirements.** Any person subject to 310 CMR 7.18(25)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(25). Testing shall be conducted in accordance with EPA Method 24, Method 25 **and/or** Method 25A as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. **EPA Method 25A shall be used when:**

- 1. An exhaust concentration of less than or equal to 50 parts per million by volume (ppmv) as carbon is required to comply with the applicable limitation;**
- 2. The inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- 3. The high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

(31) U Industrial Cleaning Solvents

(a) Applicability.

1. On or after [2 years after promulgation date], any person who owns, leases, operates or controls a facility which emits, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of volatile organic compounds (VOC) per day or 3 tons per rolling 12 month period from industrial cleaning solvents shall comply with 310 CMR 7.18(31)(c), (d), and (f) through (h).

2. On or after [promulgation date], any person who owns, leases, operates, or controls a facility which emits, before any application of add-on air pollution capture and control equipment,

equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period from industrial cleaning solvents shall comply with the work practices of 310 CMR 7.18(31)(e) for cleaning operations.

(b) Exemptions.

1. The requirements of 310 CMR 7.18(31)(d) do not apply to:

a. industrial cleaning solvent usage otherwise subject to an emission limitation in 310 CMR 7.03, 7.18, 7.25 or 7.26;

b. stripping of cured coatings, cured ink, or cured adhesives;

c. cleaning of the following:

i. solar cells;

ii. laser hardware;

iii. scientific instruments; and

iv. high-precision optics;

d. cleaning conducted as part of the following:

i. performance laboratory tests on coatings, adhesives, or inks;

ii. research and development programs; and

iii. laboratory tests in quality assurance laboratories;

e. cleaning of paper-based gaskets and clutch assemblies where the rubber is bonded to metal by means of an adhesive;

f. cleaning operations in printing pre-press or graphic art pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;

g. medical device and pharmaceutical manufacturing operations;

h. cleaning of application equipment used to apply coatings on satellites and radiation effect coatings;

i. cleaning of printed circuit boards or semi-conductor devices; and

j. cleaning of ultraviolet or electron beam adhesive application.

2. The work practice in 310 CMR 7.18(31)(e)5. does not apply to the cleaning of the nozzle tips of automated spray equipment systems.

(c) Extensions. Any person subject to 310 CMR 7.18(31)(a)1. may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(31)(a)1. by complying with 310 CMR 7.18(31)(f). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(31)(a)1. for persons applying under 310 CMR 7.18(31)(c) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 310 CMR 50.48 is submitted as part of the emission control plan;

2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;

3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and

4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(31)(d).

(d) Reasonably Available Control Technology Requirements.

Any person subject to 310 CMR 7.18(31) shall limit VOC emissions by complying with one or more of the requirements in 310 CMR 7.18(31)(d)1., 2., or 3.

1. VOC Content Limitation. Use industrial cleaning solvents that have a VOC content no greater than the emission limitations listed in Table 310 CMR 7.18(31)(d)1. If an operation can be classified in more than one industrial cleaning solvent operation category in Table 310 CMR 7.18(31)(d)1., then the least stringent category limitation shall apply.

<u>Table 310 CMR 7.18(31)(d)1.</u>		
<u>RACT Emission Limitations for Industrial Cleaning Solvent Operations</u>		
<u>Industrial Cleaning Solvent Operation Category</u>	<u>VOC content limitation as applied</u>	
	<u>pounds/gallon</u>	<u>grams/liter</u>
<u>Electrical and electronic components</u>	<u>0.83</u>	<u>100</u>
<u>Electronic or electrical cables</u>	<u>3.32</u>	<u>400</u>
<u>Manufacture of inks, coatings, or resins</u>	<u>1.68</u>	<u>202</u>
<u>Product cleaning during manufacturing process, or repair and maintenance cleaning</u>	<u>0.42</u>	<u>50</u>
<u>Surface preparation for coating or ink application</u>		
<u>Cleaning not otherwise specified</u>		

2. Vapor Pressure Limitation. Use industrial cleaning solvents that have a VOC composite partial pressure equal to or less than eight mm Hg at 20°C (68°F).

3. Add-on Air Pollution Capture and Control Equipment. Achieve an overall VOC control efficiency of at least 85 percent by weight using add-on air pollution capture and control equipment.

(e) Work Practices for Cleaning Operations. Any person subject to 310 CMR 7.18(31) shall minimize VOC emissions of industrial cleaning solvents in accordance with, but not limited to, the following practices:

- 1. covering any container containing solvent or solvent-contaminated material;**
- 2. storing any solvent-contaminated material (such as cleaning rags) or equipment (such as used applicators) in closed containers;**
- 3. cleaning spray guns in an enclosed system or manually cleaning and flushing spray guns without atomizing the cleaning solvent;**
- 4. collecting and storing used solvent in a closed container;**
- 5. not atomizing any cleaning solvent unless the emissions are vented to add-on air pollution capture and control equipment that meets the requirement of 310 CMR 7.18(31)(d)3.;**
- 6. conveying solvent in closed containers or pipes;**
- 7. maintaining cleaning equipment and solvent containers, including repairing solvent leaks;**
- 8. cleaning up any spills immediately; and**
- 9. properly disposing of any solvent and solvent-contaminated waste.**

(f) Plan and Extension Submittal Requirements.

1. Any person subject to 310 CMR 7.18(31)(a)1. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(31)(d) shall submit an emission control plan in accordance with 310 CMR 7.18(20).

2. Any person subject to 310 CMR 7.18(31)(a)1. who chooses to apply for an extension under 310 CMR 7.18(31)(c) shall comply with 310 CMR 7.18(20).

(g) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(31)(a) shall prepare and maintain records sufficient to demonstrate compliance consistent with 310 CMR 7.18(2). Records kept to demonstrate compliance shall be kept on site for five years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved emission control plan or upon request. Such records shall include, but are not limited to:

- 1. name, identification, quantity, formulation and density of industrial cleaning solvent(s) used;**

2. any other requirements specified by the Department in any approval(s) issued under 310 CMR 7.18(20) or any order(s) issued to the person;

3. when complying through 310 CMR 7.18(31)(d)1., the associated industrial cleaning solvent category from Table 310 CMR 7.18(31)(d)1. and the VOC content of each industrial cleaning solvent, in pounds per gallon or grams per liter, as applied;

4. when complying through 310 CMR 7.18(31)(d)2., the VOC composite partial pressure of each industrial cleaning solvent used in the industrial cleaning operation; and

5. when complying through 310 CMR 7.18(31)(d)3., all records required by 310 CMR 7.18(2)(e) necessary to demonstrate the VOC control efficiency.

(h) Testing Requirements. Any person subject to 310 CMR 7.18(31)(a) shall, upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(31). Testing shall be conducted in accordance with EPA Methods 24, 25, 25A or 25B as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA. EPA Method 25A shall be used when:

1. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitation;

2. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or

3. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.

(32) Fiberglass Boat Manufacturing.

(a) Applicability.

1. On or after [2 years after promulgation date], any person who owns, leases, operates, or controls a fiberglass boat manufacturing facility and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of volatile organic compounds (VOC) per day or 3 tons per rolling 12 month period shall comply with 310 CMR 7.18(32)(d), (e), (g)3. and 4. and (h) through (j).

2. On or after [promulgation date], any person who owns, leases, operates, or controls a fiberglass boat manufacturing facility and related cleaning operations which emit, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period shall comply with the work practices of 310 CMR 7.18(32)(g)1. and 2. for manufacturing and cleaning operations.

3. 310 CMR 7.18(32) does not apply to the following activities:

a. surface coatings applied to fiberglass boats and metal recreational boats or pleasure crafts;

b. closed molding operations; and

c. industrial adhesives used in the assembly of fiberglass boats, with the exception of polyester resin putties used to assemble fiberglass parts, which are not considered adhesives for the purpose of this regulation.

(b) Definitions. The definitions found in 310 CMR 7.00 apply to 310 CMR 7.18(32). The following words and phrases shall have the following meanings as they appear in 310 CMR 7.18(32). Where a term is defined in both 310 CMR 7.00: Definitions and 310 CMR 7.18(32), the definition in 310 CMR 7.18(32) shall apply.

CLOSED MOLDING means a fiberglass boat manufacturing process by which pressure is used to distribute a resin through reinforcing fabric placed between two mold surfaces to either saturate the fabric or fill the mold cavity. The term includes, but is not limited to, compression molding with sheet molding compound, infusion molding, resin injection molding, vacuum-assisted resin transfer

molding, resin transfer molding, and vacuum-assisted compression molding. The term does not include any processes in which a closed mold is used only to compact saturated fabric or remove air or excess resin from the fabric, such as in vacuum bagging.

FIBERGLASS means a material consisting of extremely fine glass fibers.

FIBERGLASS BOAT MANUFACTURING FACILITY means any facility that manufactures hulls, decks, or boats from fiberglass, or builds molds to make fiberglass boat hulls or decks. A facility that solely manufactures parts of boats, such as hatches, seats, or lockers, or boat trailers, but does not manufacture hulls or decks of boats from fiberglass or build molds to make fiberglass boat hulls or decks, is not considered a fiberglass boat manufacturing facility.

FILLED RESIN means a resin to which fillers have been added to achieve certain physical properties, particularly for building fiberglass boat molds.

GEL COAT means a clear or pigmented polyester resin that, when mixed with a hardening catalyst, is applied so that it becomes the outer surface of the finished part or mold.

MONOMER means a VOC that partially combines with itself, or with other similar compounds, by a cross-linking reaction to become a part of the cured resin.

OPEN MOLDING means a family of techniques for composite fabrication which make use of single-cavity molds and require little or no external pressure.

PRODUCTION RESIN OR GEL COAT means a resin or gel coat that is used to fabricate fiberglass boat hulls or decks.

ROLL-OUT means the process of using rollers, squeegees, or similar tools to compact reinforcing materials saturated with resin to remove trapped air or excess resin.

SKIN COAT means the first layer of resin applied to the gel coat.

TOOLING RESIN OR TOOLING GEL COAT means a resin or gel coat used to build molds and which is normally harder, more heat-resistant, and more dimensionally stable than production materials.

VACUUM BAGGING means any molding technique in which the reinforcing fabric is saturated with resin and then covered with a flexible sheet that is sealed to the edge of the mold and where a vacuum is applied under the sheet to compress the laminate, remove excess resin, or remove trapped air from the laminate during curing. Vacuum bagging does not include processes that meet the definition of closed molding.

VINYLESTER RESIN means a thermosetting resin containing esters of acrylic or methacrylic acids and having double-bond and ester linkage sites only at the ends of the resin molecules.
(c) Exemptions. The requirements in 310 CMR 7.18(32)(e) shall not apply to the following:

1. production resins, including skin coat resins, applied with non-atomizing resin application equipment, that must meet specifications under 46 CFR chapter I subchapter Q (Equipment, Construction and Materials: Specifications and Approval) or 46 CFR chapter I subchapter T (Small Passenger Vessels (Under 100 Gross Tons));
2. production and tooling resins, and pigmented, clear, and tooling gel coats used for part or mold repair and touch-up not exceeding one percent by weight of all resins and gel coats used at a fiberglass boat manufacturing facility during any consecutive 12-month period; or
3. 100-percent vinylester skin coat resins, applied with non-atomizing resin application equipment, that do not exceed five percent by weight of all resins and gel coats used at a fiberglass boat manufacturing facility during any consecutive 12-month period.

(d) Extensions. Any person subject to 310 CMR 7.18(32)(e) may apply in writing to the Department for a non-renewable extension of the implementation deadline in 310 CMR 7.18(32)(a)1. by complying with 310 CMR 7.18(32)(h). The Department will consider a non-renewable extension of the deadline in 310 CMR 7.18(32)(a)1. for persons applying under 310 CMR 7.18(32)(d) until no later than [2 years after promulgation date], provided the emission control plan submitted for approval under 310 CMR 7.18(20) meets the following criteria in addition to those of 310 CMR 7.18(20):

1. a Toxics Use Reduction Plan or a Resource Conservation Plan completed for the facility in accordance with 310 CMR 50.40 through 50.48 is submitted as part of the emission control plan;
2. the Toxics Use Reduction Plan or Resource Conservation Plan was certified by a Toxics Use Reduction Planner certified under M.G.L. c. 21I and 310 CMR 50.50 through 50.63;
3. the emission control plan proposes to reduce emissions or natural asset use, from the process or elsewhere in the facility, more than otherwise required pursuant to an applicable regulation or approval of the Department, through toxics use reduction techniques or resource conservation actions as defined in M.G.L. c. 21I; and
4. implementation of the emission control plan must meet the emission limitations of 310 CMR 7.18(32)(e).

(e) Reasonably Available Control Technology Emission Limitations for Resins and Gel Coats. Any person subject to 310 CMR 7.18(32) shall limit VOC emissions by complying with one or more of the requirements in 310 CMR 7.18(32)(e)1. through 4., and complying with 310 CMR 7.18(32)(e)5. and 6. as applicable.

1. Monomer VOC Content Limitations. Use only materials having a VOC content no greater than the limitations in Table 310 CMR 7.18(32)(e)1.

<u>Table 310 CMR 7.18(32)(e)1.</u>		
<u>Compliant Materials Monomer VOC Content Limitations for Open Molding Resins and Gel Coats</u>		
<u>Material Used</u>	<u>Application Method</u>	<u>Monomer VOC Content Limitation (weight percent, as applied)</u>
<u>Production Resin</u>	<u>Atomized (spray)</u>	<u>28</u>
<u>Production Resin</u>	<u>Non-atomized</u>	<u>35</u>
<u>Pigmented gel coat</u>	<u>Any method</u>	<u>33</u>
<u>Clear gel coat</u>	<u>Any method</u>	<u>48</u>
<u>Tooling resin</u>	<u>Atomized</u>	<u>30</u>
<u>Tooling resin</u>	<u>Non-atomized</u>	<u>39</u>
<u>Tooling gel coat</u>	<u>Any method</u>	<u>40</u>

2. Weighted-Average Monomer VOC Content. Emit no more, in a consecutive 12-month period, than the applicable monomer VOC content limitation for a specific category and application method in Table 310 CMR 7.18(32)(e)1. determined using the following equation:

$$\text{Weighted-average monomer VOC content} = \sum_{i=1}^n (M_i \text{ VOC}_i) / \sum_{i=1}^n (M_i)$$

where:

M_i = the mass of open molding resin or gel coat i used in an operation in the past consecutive 12-month period, in megagrams;
 VOC_i = monomer VOC content, by weight percent, of open molding resin or gel coat i used in an operation in the past consecutive 12-month period; and
 n = the number of different open molding resins or gel coats used in an operation in the past consecutive 12-month period.

3. Material Emissions Average. Any person subject to 310 CMR 7.18(32) may calculate the weighted-average emission rate that is equivalent to the use of compliant resin and gel coat materials contained in Table 310 CMR 7.18(32)(e)1. For a particular consecutive 12-month period, the actual monomer VOC emissions calculated in Equation 2 shall not exceed the allowable monomer VOC emissions calculated in Equation 1. The allowable monomer VOC emission limitation and the actual monomer VOC emissions shall be re-calculated monthly using the current month's and previous 11 months' actual monomer usage. For each consecutive 12-month period:

- a. identify each resin and gel coat material to be included in the calculation;**
- b. use Equation 1 to determine the allowable monomer VOC emissions limitation;**
- c. use Equation 2 to determine the actual monomer VOC emissions; and**
- d. use Equation 3 to determine the weighted-average monomer VOC emission rate (PV_{op}) for each resin and gel coat material operation for the consecutive 12-month period in Equation 2.**

Equation 1:

$$\text{Allowable Monomer VOC Limitation} = 46(M_R) + 159(M_{PG}) + 291(M_{CG}) + 54(M_{TR}) + 214(M_{TG})$$

The numerical coefficients of Equation 1. are the allowable monomer VOC emission rates for the particular materials in units of kg/Mg of material used.

where:

M_R = the mass of production resin used in the past consecutive 12-month period, excluding any materials that are exempt, in megagrams;
 M_{PG} = the mass of pigmented gel coat used in the past consecutive 12-month period, excluding any materials that are exempt, in megagrams;
 M_{CG} = the mass of clear gel coat used in the past consecutive 12-month period, excluding any materials that are exempt, in megagrams;
 M_{TR} = the mass of tooling resin used in the past consecutive 12-month period, excluding any materials that are exempt, in megagrams; and
 M_{TG} = the mass of tooling gel coat used in the past consecutive 12-month period, excluding any materials that are exempt, in megagrams.

Equation 2:

Actual Monomer VOC emissions =

$$(PV_R)(M_R) + (PV_{PG})(M_{PG}) + (PV_{CG})(M_{CG}) + (PV_{TR})(M_{TR}) + (PV_{TG})(M_{TG})$$

where:

PV_R = the weighted-average monomer VOC emission rate for production resin used in the past consecutive 12-month period, in kilograms per megagram as calculated using Equation 3;

M_R = the mass of production resin used in the past consecutive 12-month period, in megagrams;
 PV_{PG} = the weighted-average monomer VOC emission rate for pigmented gel coat used in the past consecutive 12-month period, in kilograms per megagram as calculated using Equation 3;
 M_{PG} = the mass of pigmented gel coat used in the past consecutive 12-month period, in megagrams;
 PV_{CG} = the weighted-average monomer VOC emission rate for clear gel coat used in the past consecutive 12-month period, in kilograms per megagram as calculated using Equation 3;
 M_{CG} = the mass of clear gel coat used in the past consecutive 12-month period, in megagrams;
 PV_{TR} = the weighted-average monomer VOC emission rate for tooling resin used in the past consecutive 12-month period, in kilograms per megagram as calculated using Equation 3;
 M_{TR} = the mass of tooling resin used in the past consecutive 12-month period, in megagrams;
 PV_{TG} = the weighted-average monomer VOC emission rate for tooling gel coat used in the past consecutive 12-month period, in kilograms per megagram as calculated using Equation 3;
and
 M_{TG} = the mass of tooling gel coat used in the past consecutive 12-month period, in megagrams.

Equation 3:

$$PV_{OP} = \sum_{i=1}^n (M_i PV_i) / \sum_{i=1}^n (M_i)$$

where:

M_i = the mass of resin or gel coat i used within an operation in the past consecutive 12-month period, in megagrams;
 n = the number of different open molding resins and gel coats used within an operation in the past consecutive 12-month period;
 PV_i = the monomer VOC emission rate for resin or gel coat i used within an operation in the past consecutive 12-month period, in kilograms of monomer VOC per megagram of material applied. Use the equations in Table 310 CMR 7.18(32)(e)3. to compute PV_i ; and
 PV_{OP} = the sum of the products of M_i and PV_i for open molding resin or gel coats one through n, divided by M_i one through n, as in Table 310 CMR 7.18(32)(e)3.

Table 310 CMR 7.18(32)(e)3.		
Monomer VOC Emission Rate Equations for Open Molding Operations		
Material Used	Application Method	Equation to Calculate Monomer VOC Emission Rate PV_i (kg of monomer VOC per Mg of material applied) =
Production resin, tooling resin	Atomized	$0.014 \times (\text{Resin VOC}\%)^{2.425}$
	Atomized, plus vacuum bagging with roll-out	$0.01185 \times (\text{Resin VOC}\%)^{2.425}$
	Atomized, plus vacuum bagging without roll-out	$0.00945 \times (\text{Resin VOC}\%)^{2.425}$
	Non-atomized	$0.014 \times (\text{Resin VOC}\%)^{2.275}$
	Non-atomized, plus vacuum bagging with roll-out	$0.0110 \times (\text{Resin VOC}\%)^{2.275}$
	Non-atomized, plus vacuum bagging without roll-out	$0.0076 \times (\text{Resin VOC}\%)^{2.275}$
Pigmented gel coat, clear gel coat, tooling gel coat	All methods	$0.445 \times (\text{Gel coat VOC}\%)^{1.675}$

4. Add-on Air Pollution Capture and Control Equipment. Use add-on air pollution capture and control equipment to emit no more than a numerical monomer VOC emission limitation that is

determined for each facility in accordance with Equation 1, based on the mix of application methods and materials used at that facility, except that instead of using the mass of each material used over the past consecutive 12-month period, the facility shall use the mass of each material used during the air pollution control device performance test.

5. Filled Resin Emission Rate. In addition to complying with 310 CMR 7.18(32)(e)1., 2., 3. or 4., the following shall be used in calculating the emission rate for the filled resins used at the facility:

a. when using a filled production resin or filled tooling resin, any person subject to 310 CMR 7.18(32) shall calculate the emission rate for the filled material on an as-applied basis using the following equation:

$$PV_F = PV_U \times (100 - \% \text{ Filler}) / 100$$

where:

PV_F = the as-applied monomer VOC emission rate for the filled production resin or tooling resin, kilograms monomer VOC per megagram of filled material;

PV_U = the monomer VOC emission rate for the neat or unfilled resin, before filler is added, as calculated using the equations in Table 310 CMR 7.18(32)(e)3.; and

% Filler = the weight percent of filler in the as-applied filled resin system.

b. If the filled resin is used as a production resin, the value of PV_F calculated using the equation in 310 CMR 7.18(32)(e)5.a. shall not exceed 46 kilograms of monomer VOC per megagram of filled resin applied.

c. If the filled resin is used as a tooling resin, the value of PV_F calculated using the equation in 310 CMR 7.18(32)(e)5.a. shall not exceed 54 kilograms of monomer VOC per megagram of filled resin applied.

d. If the facility includes a filled resin in the facility-specific material emissions averaging procedure, the facility shall use the value of PV_F calculated using the equation in 310 CMR 7.18(32)(e)5.a. for the value of PV_i in 310 CMR 7.18(32)(e)3., Equation 3.

6. Non-monomer VOC Content.

a. Up to five percent by weight of non-monomer VOC content of a resin or gel coat shall be exempt from the VOC content limitations of 310 CMR 7.18(32)(e).

b. If the non-monomer VOC content of a resin or gel coat exceeds five percent by weight, then the excess non-monomer VOC over five percent by weight shall be added to the monomer VOC content in determining compliance with 310 CMR 7.18(32)(e).

(f) Application Methods. Production resins, including skin coat resins, that must meet specifications under 46 CFR chapter I subchapter Q (Equipment, Construction and Materials: Specifications and Approval) or 46 CFR chapter I subchapter T (Small Passenger Vessels (Under 100 Gross Tons)), and that do not meet the requirements in 310 CMR 7.18(32)(e), shall be applied with non-atomizing resin application equipment.

(g) Work Practices and Emission Requirements for Cleaning Operations and Resin and Gel Coat Mixing Containers.

1. Any person subject to 310 CMR 7.18(32) shall comply with the work practices of 310 CMR 7.18(31)(e).

2. Any person subject to 310 CMR 7.18(32) using resin and gel coat mixing containers with a capacity equal to or greater than 208 liters, equivalent to 55 gallons, including those used for on-site mixing of putties and polyputties, shall have a cover with no visible gaps in place at all times, except when material is being manually added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

3. Any person subject to 310 CMR 7.18(32) shall only use VOC cleaning solvents for routine application equipment cleaning that either:

a. contain no more than five percent VOC by weight; or

- b. have a VOC composite partial pressure of no more than 0.50 mm Hg at 68 °F.**
- 4. Any person subject to 310 CMR 7.18(32) shall only use non-VOC solvents to remove cured resin and gel coat from application equipment.**
- (h) Plan and Extension Submittal Requirements.**
- 1. Any person subject to 310 CMR 7.18(32)(a)1. who chooses to install add-on air pollution capture and control equipment to comply with 310 CMR 7.18(32)(e) shall submit an emission control plan in accordance with 310 CMR 7.18(20).**
- 2. Any person subject to 310 CMR 7.18(32)(a)1. who chooses to apply for an extension under 310 CMR 7.18(32)(d) shall comply with 310 CMR 7.18(20).**
- (i) Recordkeeping Requirements. Any person subject to 310 CMR 7.18(32)(a) shall prepare and maintain records sufficient to demonstrate compliance consistent with 310 CMR 7.18(2). Records kept to demonstrate compliance shall be kept on site for five years and shall be made available to representatives of the Department and EPA in accordance with the requirements of an approved emission control plan or upon request. Such records shall include, but are not limited to:**
- 1. identity, quantity, formulation and density of resins and gel coat(s) used;**
- 2. identity, quantity, formulation and density of any diluent(s) and clean-up solvent(s) used;**
- 3. solids content of any gel coat(s) or resins used;**
- 4. actual operational and emissions characteristics of the operation and any appurtenant emissions capture and control equipment;**
- 5. quantity of product processed; and**
- 6. any other requirements specified by the Department in any approval(s) issued under 310 CMR 7.18(20) or any order(s) issued to the person.**
- (j) Testing Requirements. Any person subject to 310 CMR 7.18(32)(a) shall, upon request of the Department, perform or have performed the following tests, as applicable, to demonstrate compliance with 310 CMR 7.18(32).**
- 1. Testing to determine the monomer VOC content of resin and gel coat materials shall be conducted in accordance with SCAQMD Method 312-91, Determination of Percent Monomer in Polyester Resins, revised April 1996.**
- 2. Testing to determine the non-monomer VOC content of resin and gel coat materials shall be conducted in accordance with EPA Method 24 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA.**
- 3. If acceptable to the Department and EPA, manufacturer's formulation data may be used to demonstrate compliance with monomer and non-monomer VOC content limitations. In the case of a dispute, the VOC content determined using SCAQMD Method 312-91 and EPA Method 24 shall prevail, unless a person is able to demonstrate to the satisfaction of the Department and EPA that the manufacturer's formulation data are correct.**
- 4. EPA Method 25A shall be used when:**
- a. an exhaust concentration of less than or equal to 50 parts per million volume (ppmv) as carbon is required to comply with the applicable limitations;**
- b. the inlet concentration and the required level of control results in an exhaust concentration of less than or equal to 50 ppmv as carbon; or**
- c. the high efficiency of the control device alone results in an exhaust concentration of less than or equal to 50 ppmv as carbon.**

Amend 310 CMR 7.26

- (20) Environmental Results Program: Lithographic, Graphic Arts, and Screen Printing.**
- (a) 310 CMR 7.26(20) through (29) sets forth performance standards and recordkeeping requirements for lithographic, graphic arts and screen printing at facilities subject to 310 CMR 7.26(20) through (29) pursuant to 310 CMR 7.26(21).**

(b) ~~Facilities subject to 310 CMR 7.26(20) through (29) are not subject to 310 CMR 7.18(12), (14) and (25)[Reserved].~~

(c) By complying with the recordkeeping requirements contained in 310 CMR 7.26(20) through (29), and with the certification requirements contained in 310 CMR 70.00, and by maintaining actual emissions below the levels contained in 310 CMR 7.26(20)(c)1. through 4., the owner/operator of a facility subject to 310 CMR 7.26(20) through (29) restricts the federal potential emissions of the facility to below the applicable major source thresholds. ~~As such, the operations will not be subject to 310 CMR 7.00: Appendix A (Emission Offsets and Nonattainment Review), 310 CMR 7.00: Appendix C (Operating Permit Program), 40 CFR 52.21 (Prevention of Significant Deterioration), and 40 CFR 63 (Maximum Achievable Control Technology).~~ For every rolling 12-month period as defined in 310 CMR 7.26(22), the potential and actual emissions of the facility shall be less than the following limitations:

1. 50 tons of VOC or NOx, or 100 tons of any other regulated air pollutant;
2. 10 tons ~~per year~~ of any HAP;
3. 25 tons ~~per year~~ of a combination of HAPs; and
4. Any lesser threshold for a single HAP that the EPA may establish by rule.

(21) Applicability.

(a) The provisions of 310 CMR 7.26(20) through (29) apply to the owner or operator of each facility, except those facilities subject to 310 CMR 7.00: *Appendix C*:

- ~~1. with one or more screen or lithographic printing presses with a primary Standard Industrial Classification code of 23, 27 or under the new North American Industry Classification System (NAICS); 323110, or 323119,~~
- ~~2. with one or more gravure, flexographic, or letterpress printing presses with a primary Standard Industrial Classification code of 27 or under the new NAICS; 323111, 323112, or 323119, or,~~
- ~~3. with one or more printing presses with a primary Standard Industrial Classification code of 26 or under the new NAICS; 323113 or 323119.~~

1. with a primary 2012 North American Industry Classification System (NAICS) code of 323111 "Commercial Printing (except Screen and Books)," 323113 "Commercial Screen Printing," or 323117 "Books Printing;" and

2. one or more screen, lithographic, gravure, flexographic, or letterpress printing presses.

(b) The provisions of 310 CMR 7.26(20) through (29) do not apply to the owner or operator of a facility that performs lithographic, gravure, flexographic, letterpress, or screen printing with a primary ~~Standard Industrial Classification code or~~ 2012 NAICS code different from those listed in 310 CMR 7.26(21)(a).

(22) Definitions: The definitions found in 310 CMR 7.00 apply to 310 CMR 7.26(20) through (29). The following words and phrases shall have the following meanings as they appear in 310 CMR 7.26(20) through (29). Where a term is defined in the 310 CMR 7.00 Definitions section and the definition also appears in 310 CMR 7.26(22), the definition found in 310 CMR 7.26(22) controls.

...

Alcohol Substitute means non-alcohol fountain solution additives, including, but not limited to, glycol ethers or ethylene glycol.

Conforming operation means a press or presses that meet the standards established in ~~310 CMR 7.26(24)(d),~~ 310 CMR 7.26(25)(a) or 310 CMR 7.26(26)(a).

...

Large Printer means a printer that

(a) uses a total of more than 3,000 gallons of cleanup solution and inks/coatings/adhesives with a VOC content greater than 10% by weight as applied, per rolling 12 month period **or** (b) after [2 years after date of promulgation], emits more than ten tons of VOC facility-wide per rolling 12 month period based on materials used before the application of air pollution control equipment.

Incidental material, ink used in non-heatset offset lithographic printing, water-based ink/coating/adhesive, plastisols and ultraviolet ink are excluded from this calculation.

...

Midsize Printer means a printer that

(a) uses a total of more than 275 and no more than 3000 gallons of cleanup solution and inks/coatings/adhesives with a VOC content greater than 10% by weight as applied, per rolling 12 month period; ~~or that~~

(b) uses a total of more than 55 gallons of alcohol per rolling 12 month period and a total of no more than 3000 gallons of cleanup solution, and inks/coatings/adhesives with a VOC content greater than 10% by weight as applied, per rolling 12 month period; **or**

(c) after [2 years after date of promulgation], does not meet the definition of a large printer and emits, before any application of add-on air pollution capture and control equipment, equal to or greater than the greater of 15 pounds of VOC per day or 3 tons per rolling 12 month period from offset lithographic printing operations and related cleaning operations, or letterpress printing operations and related cleaning operations.

Incidental material, ink used in non-heatset offset lithographic printing, water-based ink/coating/adhesive, plastisols and ultraviolet ink are excluded from this calculation.

Non-conforming Operation means a press or presses that use(s) ink, ~~or coating, or adhesive~~ which do not meet the standards established in ~~310 CMR 7.26(24)(a)~~, 310 CMR 7.26(25)(a), or 310 CMR 7.26(26)(a) at a printer who has demonstrated that it is technically or economically infeasible to use ink, ~~or coating, or adhesive~~ that meets those standards.

...

Rolling 12 Month Period ~~or Rolling 12 Month Period~~ means any consecutive 12 month period of time.

Screen Printing means a process where the printing ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.

...

Ultraviolet Inks mean inks which dry by a polymerization reaction induced by ultraviolet energy.

[Note to reviewer: an identical "Very Small Printer" definition is included in a related proposed ERP regulation package.]

Very Small Printer means a printer that

(a) is connected to municipal sewer;

(b) uses a total of no more than 55 gallons of cleanup solution and inks/coatings/adhesives with a VOC content greater than 10% by weight as applied per rolling 12 month period;

(c) uses less than or equal to 55 gallons of alcohol per rolling 12 month period; and

(d) generates less than or equal to 55 gallons of hazardous waste per rolling 12 month period.

Incidental material, ink used in non-heatset offset lithographic printing, water-based ink/coating/adhesive, plastisol and ultraviolet ink are excluded from this calculation.

(23) Rules for Permitted Facilities:

(a) Each printing press shall be operated on or after May 1, 1998 in compliance with the standards and requirements set forth in 310 CMR 7.26(20) through (29) except in the following situations:

1. ~~[Reserved.] if a non-heatset press or conforming operation is covered by a plan approval pursuant to 310 CMR 7.02(1) or a permit pursuant to 310 CMR 7.02(9) issued prior to May 1, 1998, then the non-heatset press or conforming operation may be operated in compliance with that plan approval or permit in lieu of operating in compliance with 310 CMR 7.26(20) through (28) until May 1, 2001, at which time the non-heatset press or conforming operation shall be operated in compliance with 310 CMR 7.26(20) through (29), and the conditions of the plan approval or permit as it pertains to the non-heatset or conforming operation shall automatically expire.~~

2. if a heatset press or non-conforming operation at a facility that, based on materials used before the application of air pollution control equipment, emits no more than ten tons of VOCs facility-wide on a rolling 12 month period, is covered by a plan approval pursuant to 310 CMR 7.02(1) issued prior to May 1, 1998, then the heatset press or non-conforming operation may either be operated in compliance with that plan approval or operated in compliance with the applicable requirements set forth in 310 CMR 7.26(27)(a)1. and 2., except to the extent applicable requirements of 310 CMR 7.18 become more stringent than those in the plan approval or 310 CMR 7.26.

3. if a heatset press or non-conforming operation at a facility that, based on materials used before the application of air pollution control equipment, emits more than ten tons of VOCs facility-wide on a rolling 12 month period, is covered by a plan approval pursuant to 310 CMR 7.02(1) or a permit pursuant to 310 CMR 7.02(9), then that heatset press or nonconforming operation shall be operated in compliance with the terms and conditions of that plan approval or permit, except to the extent applicable requirements of 310 CMR 7.18 or 7.26 become more stringent than those in the plan approval or permit.

4. The following provisions take effect on [2 years after date of promulgation]: 310 CMR 7.26(24)(a)1.b., (24)(a)2.a.ii., (25)(b)2.b., (28)(b)5., and (28)(c)6.

5. The following provisions take effect on [date of promulgation]: 310 CMR 7.26(24)(c)1., (25)(b)1., and (26)(b)1.

(24) Standards for Non-heatset Offset Lithographic Printing:

(a) Fountain solution standards for midsize and large printers: The following standards apply to midsize and large printers, except that they do not apply to the fountain solution in a press with a fountain solution reservoir that holds less than or equal to one gallon. Printers may calculate the percent of alcohol in fountain solution using the methodology set forth in 310 CMR 7.26(24)(a)3.:

1. For Web-fed Presses: fountain solution shall

a. not contain any alcohol; and

b. contain no more than 5% alcohol substitutes by weight as applied.

2. For Sheet-fed Presses, except for a sheet-fed press with maximum sheet size of 11 by 17 inches or smaller:

a. unrefrigerated fountain solution ~~containing alcohol~~ shall either:

i. contain no more than 5.0% VOC by weight as applied; including but not limited to alcohol; or

ii. contain no more than 5% alcohol substitutes by weight as applied and contain no alcohol; and;

b. refrigerated fountain solution ~~containing alcohol~~ shall contain no more than 8% VOC by weight as applied, including but not limited to alcohol, and shall be refrigerated to a temperature of less than 60° F.

3. Fountain Solution Weekly Averaging: A printer may elect to meet a calendar week average VOC content for fountain solution at an individual press in demonstrating

~~compliance with 310 CMR 7.26(24)(a)2.. In doing so, a printer shall calculate the average VOC content for fountain solution per calendar week using the following formula:~~

$$VOC_w = \frac{W_1Voc + W_2Voc + W_3Voc}{W_T}$$

where:

~~VOC_w = Weight percent of VOC~~

~~W₁Voc = Weight of VOC in Concentrate~~

~~W₂Voc = Weight of VOC in Additive~~

~~W₃Voc = Weight of VOC added~~

~~W_T = Total Weight of fountain solution~~

(b) ~~Fountain solution tank standard:~~ Fountain solution mixing and storage tanks shall be covered, except when adding or removing solution.

(c) Work Practices and Emission Requirements for Printing and Cleaning Operations Cleanup solution standard:

1. Any person subject to 310 CMR 7.26(20) shall comply with the work practices of 310 CMR 7.18(31)(e).

2. Cleanup solution used to clean an offset lithographic printing press shall meet **at least one of** the following standards, except that these standards do not apply to incidental materials:

cleanup solution either

a. shall not exceed 30% VOC by weight as applied, calculated pursuant to EPA test method 24.2; or

b. shall have a VOC composite partial pressure of 10 mmHg or less at 20°C (68°F);

2. cleanup solution shall be kept in covered containers during transport and storage, and

3. shop towels contaminated with cleanup solution shall be kept, when not in use, in covered containers.

(d) ~~Adhesive standard for midsize and large printers: Adhesives shall meet the following limit for VOC content, expressed in grams VOC per liter of product as applied (pounds per gallon), less water:~~

~~Adhesive — 300 (2.5)~~

(25) Graphic Arts Printing: Gravure, Letterpress, and Flexographic Printing:

(a) ~~Inks, and coating, and adhesive~~ standards for midsize and large printers: The following standards apply to midsize and large printers. Inks, and coatings, ~~and adhesives~~, except incidental materials, shall meet the following limits for VOC content, expressed in grams VOC per liter of product as applied (pounds per gallon), less water:

Ink 300 (2.5)

Coating 300 (2.5)

~~Adhesive — 150 (1.25)~~

(b) Work Practices and Emission Requirements for Printing and Cleaning Operations Cleanup solution standard:

1. Any person subject to 310 CMR 7.26(20) shall comply with the work practices of 310 CMR 7.18(31)(e).

2. Cleanup solution ~~used to clean a flexographic, gravure, or letterpress printing press~~ shall meet the following standards, except that these standards do not apply to incidental materials:

a. cleanup solution ~~used to clean a letterpress printing press at a very small or small printer or used to clean a flexographic or gravure printing press at any printer~~ shall

have a VOC composite partial pressure of 25 mm Hg or less at 20°C (68°F); ~~and~~

b. cleanup solution used to clean a letterpress printing press at a midsize or large printer shall:

i. have a VOC composite partial pressure of less than 10 mm Hg at 20°C (68°F); or

ii. contain less than 70% VOC by weight.

2. cleanup solution shall be kept in covered containers during transport and storage, and

~~3. shop towels contaminated with cleanup solution shall be kept, when not in use, in covered containers.~~

(26) Screen Printing:

(a) ~~Ink, and coating, and adhesive~~ standards for midsize and large printers: The following standard applies to midsize and large printers. Inks, and coatings, ~~and adhesives~~, except incidental materials, used in screen printing shall meet the following limits for VOC content, expressed in grams VOC per liter of product as applied (pounds per gallon), less water:

Ink	400 (3.3)
Coating	400 (3.3)
Adhesive	400 (3.3)
Extreme Performance Ink/Coating	800 (6.7)
Metallic Ink	400 (3.3)
Conductive Ink	850 (7.1)

(b) Work Practices and Emission Requirements for Printing and Cleaning Operations Cleanup solution standard:

1. Any person subject to 310 CMR 7.26(20) shall comply with the work practices of 310 CMR 7.18(31)(e).

2. Cleanup solution used in screen printing shall have a VOC composite partial pressure of 5.0 mm Hg or less at 20°C (68°F) meet the following standards, except that ~~these~~ this standards does not apply to incidental materials:

1. cleanup solution shall have a VOC composite partial pressure of 5.0 mm Hg or less at 20°C (68°F),

2. cleanup solution shall be kept in covered containers during transport and storage, and

3. shop towels contaminated with cleanup solution shall be kept, when not in use, in covered containers.

(27) Printers with Heatset Presses or Non-conforming Operations:

...

(b) A printer that emits no more than ten tons of actual VOCs facility-wide on a rolling 12 month period based on approved control equipment or other enforceable restrictions contained in a plan approval or permit issued pursuant to 310 CMR 7.02(1) or 310 CMR 7.02(9), including but not limited to production and operational restrictions, may install one or more heatset presses or non-conforming operations without obtaining a plan approval or permit pursuant to 310 CMR 7.02(1) or 310 CMR 7.02(9) for the new press(es) or operation(s) provided that:

1. installation of the new heatset press(es) or non-conforming operation(s) will not result in more than ten tons per year (TPY) of actual VOC emissions facility-wide on a rolling 12 month period based on:

ai. raw material inputs associated with the new press(es) or operation(s); and

bii. with respect to existing heatset press(es) or non-conforming operation(s), approved control equipment or other enforceable restrictions, including but not limited to production and operational restrictions; and,

2. with respect to the new press(es) or operation(s), the printer complies with the requirements set forth in 310 CMR 7.26(27)(a)1. and 2..

(c) A printer that emits more than ten tons of actual VOCs facility-wide on a rolling 12 month period based on raw material inputs or enforceable restrictions contained in a plan approval or permit issued pursuant to 310 CMR 7.02(1) or 310 CMR 7.02(9), including but not limited to production and operational restrictions, shall, with respect to heatset press(es) or non-conforming operation(s), comply with the terms and conditions of a plan approval or permit issued pursuant to 310 CMR 7.02(1) or 310 CMR 7.02(9), except to the extent applicable requirements of 310 CMR 7.18 or 7.26 become more stringent than those in the plan approval or permit.

...

(28) Recordkeeping: Each printer shall maintain records sufficient to demonstrate compliance. Such records shall be kept on-site for at least ~~three~~**five** years, and shall be made available to representatives of the Department upon request. Such records shall include, but are not limited to, the following:

(a) Each small printer **and very small printer** shall maintain:

1. monthly purchase or usage records sufficient to demonstrate that the printer is a small printer **or very small printer**, including but not limited to records concerning cleanup solutions, alcohol, inks, coatings, adhesives and incidental materials, excluding water-based inks/coatings/adhesives, ultraviolet inks, plastisol inks, and inks used in non-heatset offset lithographic printing;

...

(b) Each midsize printer shall maintain:

...

4. ~~calculations performed pursuant to 310 CMR 7.26(24)(a)3;~~
~~5.~~ the daily temperature of fountain solutions required to be refrigerated pursuant to 310 CMR 7.26(24)(a)2.b. when alcohol content is greater than 5% by weight;
5. records of the percent by weight of alcohol substitutes in fountain solution as measured each time alcohol substitutes are used to mix a new batch of fountain solution and each time it is added to fountain solution on-press, based on analytical data, and the proportions of the constituents mixed;

...

(c) Each large printer shall maintain:

...

3. a calculation of actual emissions per calendar month based ~~on~~**all** VOC and each HAP containing compounds used at the facility. VOC emissions from non-heatset **non-vegetable-based** inks used in lithography shall be calculated by assuming that 5% of the inks' VOCs are emitted to the atmosphere and 95% are retained in the paper. VOC emissions from heatset **non-vegetable-based** inks used in lithography shall be calculated by assuming that 80% of the inks' VOCs are emitted to the atmosphere and 20% are retained in the paper. **VOC emissions from vegetable-based inks used in lithography shall be calculated by assuming that none of the inks' VOCs are emitted to the atmosphere and 100% are retained in the paper;**

4. the percent by weight of VOC in fountain solution as measured each time alcohol or alcohol mix is used to mix a new batch of fountain solution and each time it is added to fountain solution on-press, based on analytical data and the proportions of the constituents mixed;

5. ~~calculations performed pursuant to 310 CMR 7.26(24)(a)3;~~
~~6.~~ the daily temperature of fountain solutions required to be refrigerated pursuant to 310 CMR 7.26(24)(a)2.b. when alcohol content is greater than 5% by weight;
67. records of the percent by weight of alcohol substitutes in fountain solution as measured each time alcohol substitutes are used to mix a new batch of fountain solution and each time it is added to fountain solution on-press, based on analytical data, and the proportions of the constituents mixed;

7. for water-based inks/coatings/adhesives, ultraviolet inks, and plastisol inks, MSDSs or other records demonstrating that the ink/coating/adhesive is water-based, ultraviolet, or plastisol as applicable; and,

8. printers using alcohol-free fountain solution on web-fed or sheetfed non-heatset offset lithographic printing presses, records (*e.g.*, MSDSs) demonstrating that the fountain solution constituents are alcohol-free.

(29) Compliance Certification Requirement:

...

- (b) **1.** If, during the course of the certification period, a printer installs a new printing press or makes operational changes which will cause a modification of its size classification, the printer shall, within 60 days of operation of the new press or actual operational changes respectively, notify the Department in writing. Such printer shall comply with 310 CMR 7.26(20) through (29) based on the applicable new size classification as soon as the new press is operating or the operational change is made.

2. If, on [2 years after date of promulgation] a printer that formerly met the definition of a very small printer or small printer meets the definition of a midsize printer or a large printer, the printer shall, on or before [2 years after date of promulgation], notify the Department in writing. Such printer shall comply with 310 CMR 7.26(20) through (29) based on the applicable new size classification on and after [2 years after date of promulgation].

- (c) If, during the course of the certification period, a printer relinquishes an existing plan approval in accordance with 310 CMR 7.26(23)(a)(~~1~~ or ~~2~~), then within 30 days of such change the printer shall notify the Department in writing.

Amend 310 CMR 7.00: Appendix B

(4)(b) Applicability.

1. 310 CMR *Appendix B*(4) applies to any person who operates or controls a facility(ies) subject to either 310 CMR 7.18-(3) through (~~67~~), (10) through (12), (14) through (16), (21) through (~~267~~), **(30)(c)7., (31)** or 310 CMR 7.19(4), (5), (7), (8), (12), that set an emission limitation in either pounds of VOC per gallon of solids applied or pounds of NOx per million Btu of heat input, respectively, and who chooses to comply by emission averaging.